JVC

SERVICE MANUAL

COLOR TELEVISION

AV-27750 (US&CA)

BASIC CHASSIS
GK II

CONTENTS

SPECIFICATIONS

Item	Content
Dimensions (W×H×D) Mass	25-7/8" × 23-1/8" × 20-1/2" / 65.5cm × 58.6cm × 51.8cm 73.3lbs / 33.3kg

TV System and Color system
     TV RF System
     Color System
     Sound System
	
	 CCIR (M)
	 NTSC
	 BTSC (Multi Channel Sound)

TV Receiving Channels and Frequency
     VL Band
     VH Band
     UHF Band
	
	 (02 ~ 06) 54MHz ~ 88MHz
	 (07 ~ 13) 174MHz ~ 216MHz
	 (14 ~ 69) 470MHz ~ 806MHz

CATV Receiving Channels and
 Frequency (Quartz Synthesizer system)
     Low Band
     High Band
     Mid Band
     Super Band
     Hyper Band
     ULTRA Band
     Sub Mid Band
 TV/CATV Total Channel
	
	 (02 ~ 06, A-8) by (02 ~ 06&01)
	 (07 ~ 13) by (07 ~ 13)
	 (A ~ 1) by (14 ~ 22)
	 (J ~ W) by (23 ~ 36) (54MHz~804MHz)
	 (W+1 ~ W+28) by (37 ~ 64)
	 (W+29 ~ W+84) by (65 ~ 125)
	 (A8, A4 ~ A1) by (01, 96 ~ 99)
	 180 Channels

Intermediate Frequency
     Video IF Carrier
     Sound IF Carrier
 Color Sub Carrier
	
	 45.75MHz
	 41.25MHz (4.5MHz)
	 3.58MHz

Antenna terminal Power Input Power Consumption Input Current Picture Tube Viewable Picture Size (W×H) High Voltage Speaker Audio Power Output	75Ω (VHF/UHF) Terminal, F-Type Connector 120V AC, 60Hz 120W(US) 1.5A(CA) 27"(69cm) measured diagonally, Full Square 21-5/16" × 16" / 54.1cm × 40.6cm 30kV ± 1.3kV (at zero beam current) 2" × 4-3/4" / 5 × 12cm Oblong Type × 2 3W × 2

Input (1, 2)
 	
 S-VIDEO IN
 	
 Variable / Fix Audio Output
 	
 AV Compulink Input
	Video : 1 Vp-p 75Ω (RCA pin jack)
	 Audio : 500 mV rms (-4dBs), High Impedance (RCA pin jack)
	 Y : 1 Vp-p positive (negative sync provided,when terminated with 75Ω)
	 C : 0.286 Vp-p (burst signal, when terminated with 75Ω)
	 Variable: More than 0~1550mV rms (+6dBs)
	     Low Impedance (400Hz when modulated 100%) (RCA pin jack)
	 Fix : 500 mV rms (-4dBs)
	     Low Impedance (400Hz when modulated 100%) (RCA pin jack)
	 RECEIVER / AMP : 3.5mm mini jack
	 VCR ONLY : 3.5mm mini jack

Remote Control Unit	RM-C742-1C (AA/R6/UM-3 dry battery ×2)

Design & specification subject to change without notice.

SAFETY PRECAUTIONS

1. The design of this product contains special hardware, many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits. Service should be performed by qualified personnel only.

2. Alterations of the design or circuitry of the products should not be made. Any design alterations or additions will void the manufacturer's warranty and will further relieve the manufacturer of responsibility for personal injury or property damage resulting therefrom.

3. Many electrical and mechanical parts in the products have special safety-related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in the parts list of Service manual. **Electrical components having such features are identified by shading on the schematics and by ($\triangle$) on the parts list in Service manual.** The use of a substitute replacement which does not have the same safety characteristics as the recommended replacement part shown in the parts list of Service manual may cause shock, fire, or other hazards.

4. **Use isolation transformer when hot chassis.**
   The chassis and any sub-chassis contrained in some products are connected to one side of the AC power line. An isolation transformer of adequate capacity should be inserted between the product and the AC power supply point while performing any service on some products when the HOT chassis is exposed.

5. **Don't short between the LIVE side ground and ISOLATED(NEUTRAL) side ground or EARTH side ground when repairing.**
   Some model's power circuit is partly different in the GND. The difference of the GND is shown by the LIVE : ($\perp$) side GND, the ISOLATED(NEUTRAL) : ($\not\rightarrow$) side GND and EARTH : ($\oplus$) side GND. Don't short between the LIVE side GND and ISOLATED(NEUTRAL) side GND or EARTH side GND and never measure with a measuring apparatus (oscilloscope etc.) the LIVE side GND and ISOLATED(NEUTRAL) side GND or EARTH side GND at the same time.
   If above note will not be kept, a fuse or any parts will be broken.

6. If any repair has been made to the chassis, it is recommended that the B_1 setting should be checked or adjusted (See ADJUSTMENT OF B_1 POWER SUPPLY).

7. The high voltage applied to the picture tube must conform with that specified in Service manual. Excessive high voltage can cause an increase in X-Ray emission, arcing and possible component damage, therefore operation under excessive high voltage conditions should be kept to a minimum, or should be prevented. If severe arcing occurs, remove the AC power immediately and determine the cause by visual inspection (incorrect installation, cracked or melted high voltage harness, poor soldering, etc.). To maintain the proper minimum level of soft X-Ray emission, components in the high voltage circuitry including the picture tube must be the exact replacements or alternatives approved by the manufacturer of the complete product.

8. Do not check high voltage by drawing an arc. Use a high voltage meter or a high voltage probe with a VTVM. Discharge the picture tube before attempting meter connection, by connecting a clip lead to the ground frame and connecting the other end of the lead through a 10kΩ 2W resistor to the anode button.

9. When service is required, observe the original lead dress. Extra precaution should be given to assure correct lead dress in the high voltage circuit area. Where a short circuit has occurred, those components that indicate evidence of overheating should be replaced. Always use the manufacturer's replacement components.

10. **Isolation Check**
    (Safety for Electrical Shock Hazard)
    After re-assembling the product, always perform an isolation check on the exposed metal parts of the cabinet (antenna terminals, video/audio input and output terminals, Control knobs, metal cabinet, screwheads, earphone jack, control shafts, etc.) to be sure the product is safe to operate without danger of electrical shock.

(1) **Dielectric Strength Test**
    The isolation between the AC primary circuit and all metal parts exposed to the user, particularly any exposed metal part having a return path to the chassis should withstand a voltage of 1100V AC (r.m.s.) for a period of one second.
    (. . . . Withstand a voltage of 1100V AC (r.m.s.) to an appliance rated up to 120V, and 3000V AC (r.m.s.) to an appliance rated 200V or more, for a period of one second.)
   This method of test requires a test equipment not generally found in the service trade.

(2) **Leakage Current Check**
    Plug the AC line cord directly into the AC outlet (do not use a line isolation transformer during this check.). Using a "Leakage Current Tester", measure the leakage current from each exposed metal part of the cabinet, particularly any exposed metal part having a return path to the chassis, to a known good earth ground (water pipe, etc.). Any leakage current must not exceed 0.5mA AC (r.m.s.).
    • **Alternate Check Method**
    Plug the AC line cord directly into the AC outlet (do not use a line isolation transformer during this check.). Use an AC voltmeter having 1000 ohms per volt or more sensitivity in the following manner. Connect a 1500Ω 10W resistor paralleled by a 0.15μF AC-type capacitor between an exposed metal part and a known good earth ground (water pipe, etc.). Measure the AC voltage across the resistor with the AC voltmeter. Move the resistor connection to each exposed metal part, particularly any exposed metal part having a return path to the chassis, and measure the AC voltage across the resistor. Now, reverse the plug in the AC outlet and repeat each measurement. Any voltage measured must not exceed 0.35V AC (r.m.s.). This corresponds to 0.5mA AC (r.m.s.).


AC VOLTMETER (HAVING 1000Ω/V, OR MORE SENSITIVITY)

0.15μF AC-TYPE

1500Ω 10W

PLACE THIS PROBE ON EACH EXPOSED METAL PART

GOOD EARTH GROUND
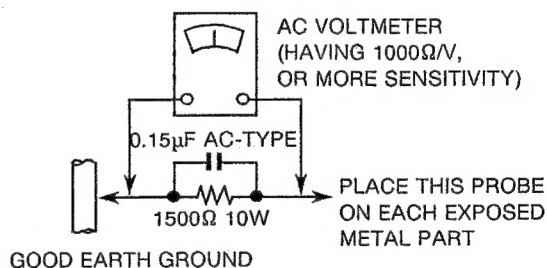
11. **High voltage hold down circuit check.**
    After repair of the high voltage hold down circuit, this circuit shall be checked to operate correctly.
    See item "**How to check the high voltage hold down circuit**".

This mark shows a fast operating fuse, the letters indicated below show the rating.

-.:-.A   -.:-.V
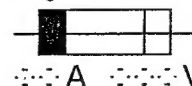
FEATURES

- New chassis design enables use of a main board with simplified circuitry.
- Comb filter improved picture quality.
- Provided with miniature tuner (TV / CATV)
- Full-square CRT (cathode ray tube) reproduces fine textured picture in every detail.
- PLL synthesizer system TV / CATV totaling 180 channels.
- AV COMPU LINK terminals allow simultaneous mode switching of the TV, connected receiver (or amplifier) and/or VCR.

- Closed-caption broadcasts can be viewed.
- With AUDIO. VIDEO INPUT terminal.
- S-VIDEO input terminal for taking best advantage of Super VHS.
- Variable audio output terminal.
- Built-in PIP system.
- An auto demonstration function demonstrates the features of this model.
- I^2C bus control utilizes single chip ICs.

DIFFERENCE LIST OF MAIN PARTS

⚠ Part name	AV-27750(US)	AV-27750(CA)
⚠ RATING LABEL	CM23034-001-A	CM22999-001-A
⚠ INST BOOK (FRENCH)	✕	CQ40199-001-A
REGI.CARD	BT-51006-1Q	✕
SVC CENTER LIST	✕	BT-20071B-Q
WARRANTY CARD	✕	BT-52002-1Q

SPECIFIC SERVICE INSTRUCTIONS

REPLACEMENT OF CHIP COMPONENT

■CAUTIONS
1. Avoid heating for more than 3 seconds.
2. Do not rub the electrodes and the resist parts of the pattern.
3. When removing a chip part, melt the solder adequately.
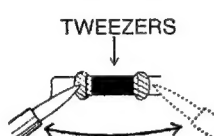4. Do not reuse a chip part after removing it.

■SOLDERING IRON
1. Use a high insulation soldering iron with a thin pointed end of it.
2. A 30w soldering iron is recommended for easily removing parts.
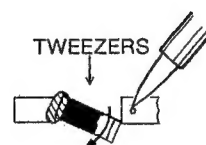
■REPLACEMENT STEPS

1. How to remove Chip parts

●Resistors, capacitors, etc

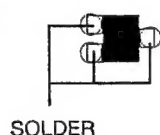(1) As shown in the figure, push the part with tweezers and alternately melt the solder at each end.

TWEEZERS

(2) Shift with tweezers and remove the chip part.
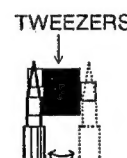
TWEEZERS

●Transistors, diodes, variable resistors, etc

(1) Apply extra solder to each lead.

SOLDER

(2) As shown in the figure, push the part with tweezers and alternately melt the solder at each lead. Shift and remove the chip part.

TWEEZERS

Note: After removing the part, remove remaining solder from the pattern.

2. How to install Chip parts

●Resistors, capacitors, etc

(1) Apply solder to the pattern as indicated in the figure.
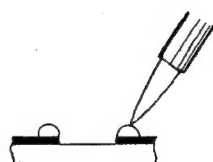
(2) Grasp the chip part with tweezers and place it on the solder. Then heat and melt the solder at both ends of the chip part.
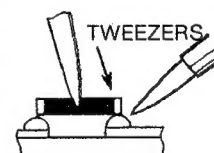
TWEEZERS

●Transistors, diodes, variable resistors, etc

(1) Apply solder to the pattern as indicated in the figure.

(2) Grasp the chip part with tweezers and place it on the solder.

(3) First solder lead A as indicated in the figure.

(4) Then solder leads B and C.

(A) (B) (C)

(A) (B) (C)

DISASSEMBLY PROCEDURE

REMOVING THE REAR COVER

1. Unplug the power supply cord.
2. Remove the nine screws marked Ⓐ as shown in Fig. 2.

* When reinstalling the rear cover, carefully push it inward after inserting the chassis into the rear cover groove.
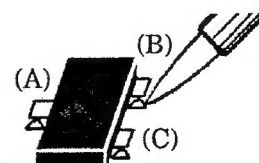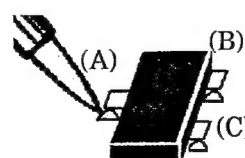
REMOVING THE CHASSIS

• After removing the rear cover.
1. Slightly raise the both sides of the chassis by hand and remove the two claws under the both sides of the chassis from the front cabinet.
2. Draw the chassis backward along the rail in the arrow direction marked Ⓑ as shown in the Fig. 2.
   (If necessary, take off the wire clamp, connectors etc.)
• When conducting a check with power supplied, be sure to confirm that the CRT earth wire is connected to the CRT SOCKET PWB and the MAIN PWB.

REMOVING THE FRONT CONTROL PW BOARD

• After removing the rear cover and chassis.
1. Remove the 2 screws marked Ⓒ as shown in Fig. 2.
2. Remove the FRONT CONTROL PW BOARD toward you.

REMOVING THE TERMINAL BOARD

• After removing the rear cover.
1. Remove the 4 screws marked Ⓓ as shown in Fig. 2.
2. After removing the claw marked Ⓔ from the AV JACK PWB in the direction of arrow mark as shown in Fig.1, remove the 2 claws marked Ⓕ in the direction of arrow mark, then take off the TERMINAL BOARD in the direction of arrow marked Ⓖ.

REMOVING THE ANT SPLITTER

1. Remove a screw marked Ⓗ as shown Fig.1.

CHECKING THE MAIN PW BOARD

1. To check the back side of the MAIN PW Board.
   1) Pull out the chassis. (Refer to REMOVING THE CHASSIS).
   2) Erect the chassis vertically so that you can easily check the back side of the MAIN PW Board.
[CAUTION]
• When erecting the chassis, be careful so that there will be no contacting with other PWB.
• Before turning on power, make sure that the wire connector, CRT earth wire and other connectors properly connected.

WIRE CLAMPING AND CABLE TYING

1. Be sure to clamp the wire.
2. Never remove the cable tie used for tying the wires together. Should it be inadvertently removed, be sure to tie the wires with a new cable tie.
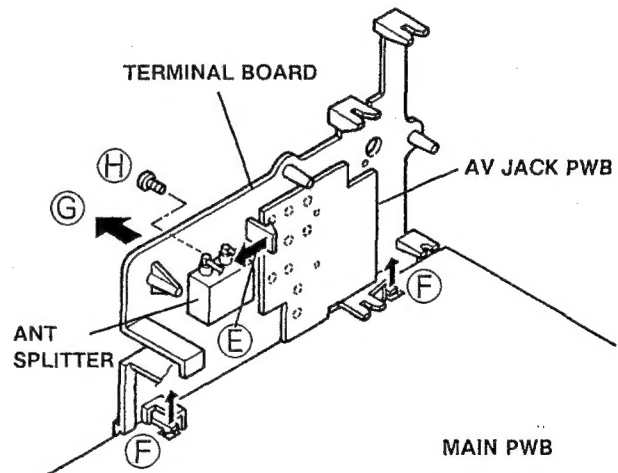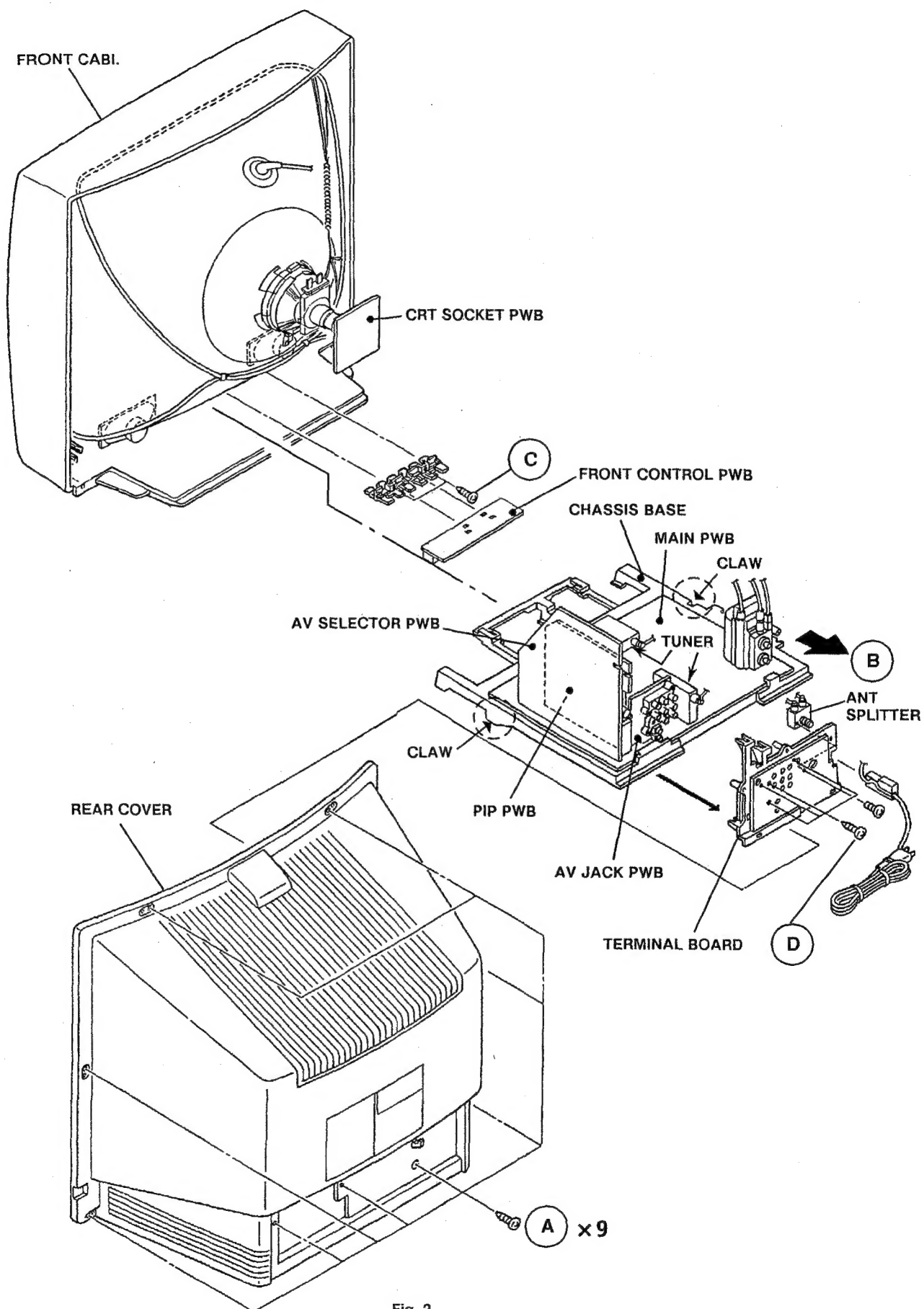

Fig.1

FRONT CABI.

CRT SOCKET PWB

C

FRONT CONTROL PWB

CHASSIS BASE

MAIN PWB

CLAW

AV SELECTOR PWB

TUNER

B

ANT SPLITTER

CLAW

PIP PWB

REAR COVER

AV JACK PWB

TERMINAL BOARD

D

A ×9

Fig. 2

MEMORY IC REPLACEMENT

1. Memory IC

This model uses a memory (EEP-ROM) IC.

The memory IC stores data for proper operation of the video and deflection circuits.

When replacing, be sure to use an IC containing this (initial value) data.
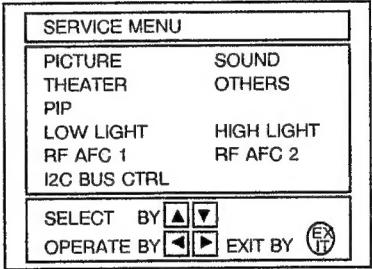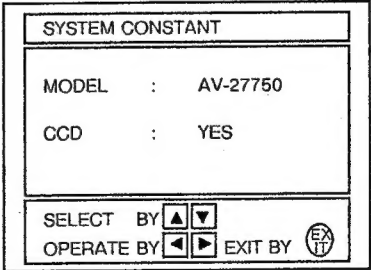
2. Memory IC replacement procedure

Procedure	Screen display
(1) Power off Switch off the power and disconnect the power cord from the outlet.	
(2) Replace the memory IC. Initial value must be entered into the new IC.	
(3) Power on Connect the power cord to the outlet and switch on the power.	
(4) System constant check and setting 1) Simultaneously press the DISPLAY key and VIDEO STATUS key of the remote control unit. 2) The SERVICE MENU screen of Fig. 1 is displayed. 3) While the SERVICE MENU is displayed, again simultaneously press the DISPLAY and VIDEO STATUS keys to display the Fig. 2 SYSTEM CONSTANT screen. 4) Refer to the SYSTEM CONSTANT table and check the setting items. Where these differ, select the setting item with the MENU UP / DOWN key and adjust the setting with the MENU LEFT / RIGHT keys.(The letters of the selected item are displayed in yellow.) 5) After adjusting, release the MENU LEFT / RIGHT key to store the setting value. 6) Press the EXIT key twice to return the normal screen.	SERVICE MENU PICTURE SOUND THEATER OTHERS PIP LOW LIGHT HIGH LIGHT RF AFC 1 RF AFC 2 I2C BUS CTRL SELECT BY ▲ ▼ OPERATE BY ◄ ► EXIT BY (EXIT) Fig. 1
(5) Receive channel setting Refer to the OPERATING INSTRUCTIONS(USER'S GUIDE) and set the receive channels (Channels Preset) as described.	SYSTEM CONSTANT MODEL : AV-27750 CCD : YES SELECT BY ▲ ▼ OPERATE BY ◄ ► EXIT BY (EXIT) Fig. 2
(6) User settings Check the user setting items According to Table 2. Where these do not agree, refer to the OPERATING INSTRUCTIONS(USER'S GUIDE) and set the items as described.	
(7) SERVICE MENU setting Verify what to set in the SERVICE MENU, and set whatever is necessary. (Fig. 1) refer to the SERVICE ADJUSTMENT for setting.	

TABLE 1 (System Constant setting)

Setting item	Setting constant	Setting value
MODEL	→ AV-27730 → AV-27750 → AV-27770 → → AV-32720 → AV-32730 → AV-32750 → → AV-32770 → AV-35750 → AV-35770 →	AV-27750
CCD	→ YES → NO →	YES

TABLE 2 (User setting)

Setting Item	Setting Value	Setting Item	Setting Value
1. Use remote controller keys		DISPLAY	OFF
POWER	OFF	VIDEO STATUS	STANDARD
CHANNEL	CH - 02	SLEEP TIMER	00
VOLUME	Proper sound volume	PIP SOURCE	CH - 02
TV / VIDEO	TV	PIP POSITION	Lower left
CLOSED CAPTION	OFF (CC1 / T1)		
HYPER SURROUND	OFF		
2. Settings from MENU		TV SPEAKER	ON
TINT	CENTER	AUDIO OUT	FIX
COLOR	CENTER	LANGUAGE	ENG
PICTURE	CENTER	CLOSED CAPTION	CAPTION : CC1
BRIGHT	CENTER		TEXT : T1
DETAIL	CENTER		
NOTCH	OFF	AUTO TUNER SET UP	OTHERS
NOISE MUTE	ON	CHANNEL SUMMARY	Set optionally
SET VIDEO STATUS	CENTER		Stations 02 — CBS
			04 — NBC
BASS	CENTER		07 — ABC
TREBLE	CENTER	TUNER MODE	AIR
BALANCE	CENTER	AUTO DEMO	Unnecessary to set
MTS	STEREO		
SET CLOCK	Unnecessary to set		
ON / OFF TIMER	NO		
SET LOCK CODE	Unnecessary to set		

SERVICE ADJUSTMENTS

ADJUSTMENT PREPARATION:

1. You can make the necessary adjustments for this unit with either the Remote Control Unit or with the adjustment tools and parts as before.
2. Adjustment with the Remote Control Unit is made on the basis of the initial setting values; however, the new setting values which set the screen to its optimum condition may differ from the initial settings.
3. Turn on the power for the set and test equipment before use, and start the adjustment procedures after waiting at least 30 minutes.
4. Make sure that AC power is turned on correctly.
5. Unless otherwise specified, prepare the most suitable reception or input signal for adjustment.
6. Never touch any adjustment parts which are not specified in the list for this adjustment - variable resistors, transformers, condensers, etc.
7. Presetting before adjustment.
   Unless otherwise specified in the adjustment instructions, preset the following functions with the Remote Control Unit:

(1) VIDEO STATUS	STANDARD	(3) HYPER SURROUND	OFF
(2) NOTCH	OFF	(4) BASS, TREBLE, BALANCE	CENTER

TESTERS & TOOLS

1. DC voltmeter (or digital voltmeter)
2. Oscilloscope
3. Signal generator (Pattern generator) [NTSC]
4. Remote control unit
5. TV audio multiplex signal generator
6. Frequency counter

ADJUSTMENT ITEMS

Adjustment items	Adjustment items	Adjustment items
B1 voltage check	WHITE BALANCE (Low Light)	PIP CIRCUIT (7 ITEMS)
IF VCO	WHITE BALANCE (High Light)	MTS INPUT LEVEL check
RF. AGC	SUB BRIGHT	MTS STEREO VCO
FOCUS	SUB CONTRAST	MTS SAP VCO
V. CENTER, V. SIZE and V.POSITION	SUB COLOR	MTS FILTER check
H. POSITION	SUB TINT	MTS SEPARATION

ADJUSTMENT LOCATIONS

MAIN PWB ASS'Y

FRONT CONTROL PWB ASS'Y (SOLDER SIDE)

CRT SOCKET PWB ASS'Y
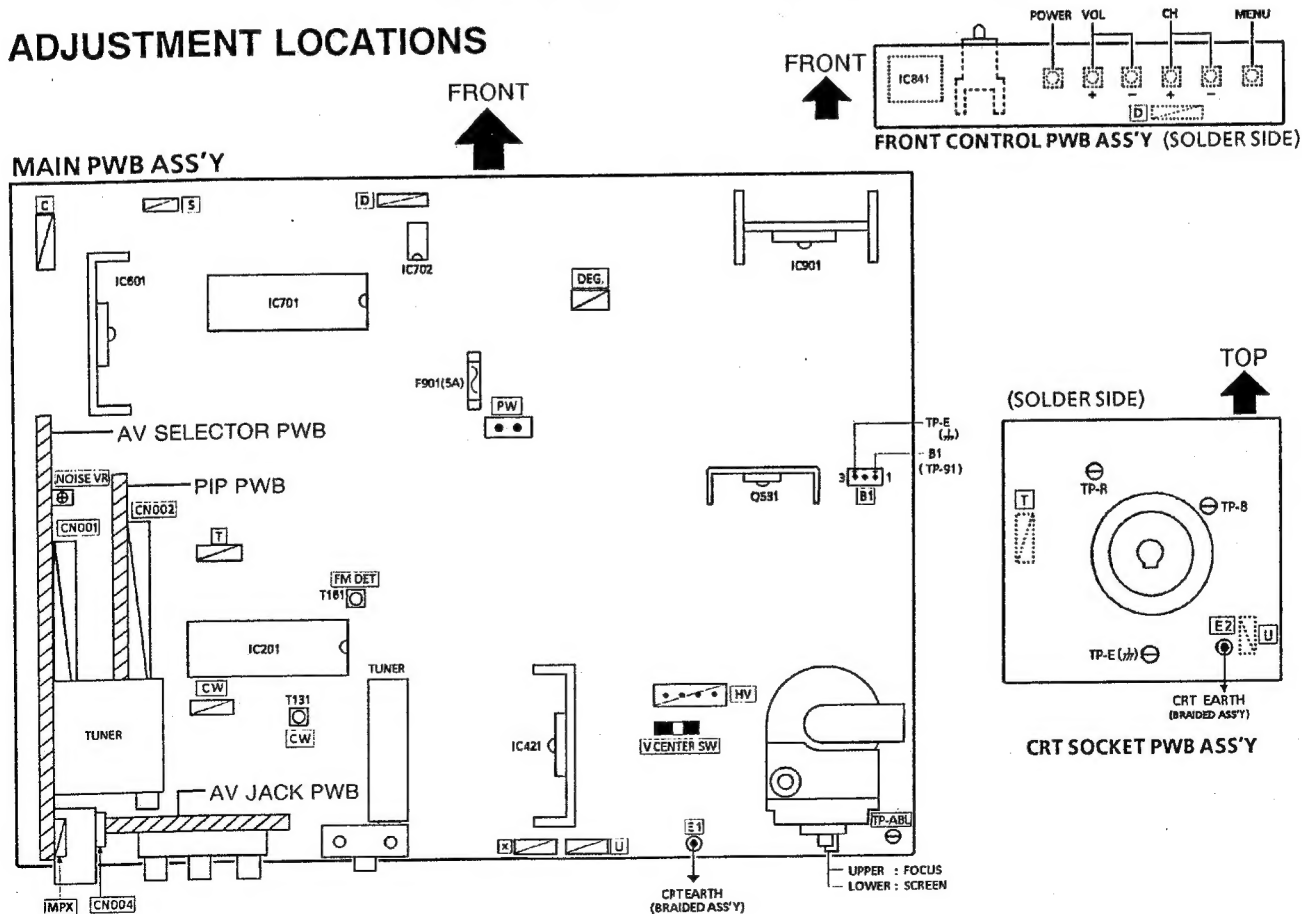
BASIC OPERATION OF SERVICE MENU

1. The REMOTE CONTROL UNIT is used for the SERVICE MENU operation.

2. In general, the ten basic setting (adjustments) items or verifications are performed in the SERVICE MENU.

   (1) PICTURE . . . . .   This sets the setting values (adjustment values) of the VIDEO / CHROMA and DEFLECTION circuits.

   (2) SOUND . . . .   This sets the setting values (adjustment values) of the AUDIO circuit.

   (3) THEATER . . . . .   This is used when the THEATER MODE is adjusted.

   (4) OTHERS . . . . . .   This sets the setting values (adjustment values) of the OTHERS circuit.

   (5) PIP . . . .   This sets the setting values (adjustment values) of the PICTURE-IN-PICTURE circuit.

   (6) LOW LIGHT . . .   This sets the setting values (adjustment values) of the WHITE BALANCE circuit.

   (7) HIGH LIGHT . . .   This sets the setting values (adjustment values) of the WHITE BALANCE circuit.

   (8) RF AFC 1 . . . . .   This is used when the IF VCO is adjusted.

   (9) RF AFC 2 . . . . .   This is used when the IF VCO is adjusted of the PIP.

   (10) I2C BUS CTRL   This is used when ON / OFF of the I2C BUS CTRL is set.

3. Basic Operations of the SERVICE MENU

  (1) How to enter the SERVICE MENU.

    1) Press the DISPLAY KEY and VIDEO STATUS KEY of the REMOTE CONTROL UNIT at the same time to display the SERVICE MENU screen shown in Fig.1.
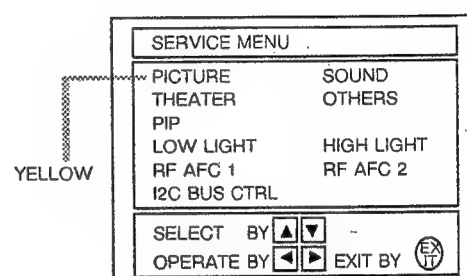
  (2) SERVICE MENU screen selection

    1) Press the UP / DOWN key of the MENU to select any of the following items.(The letters of the selected items are displayed in yellow.)

      ● PICTURE   ● SOUND

      ● THEATER   ● OTHERS

      ● PIP

      ● LOW LIGHT   ● HIGH LIGHT

      ● RF AFC 1   ● RF AFC 2

      ● I2C BUS CTRL

    2) Select any of PICTURE, SOUND or OTHERS. The screen shown in Fig.2 will be displayed if the LEFT / RIGHT KEY is pressed.
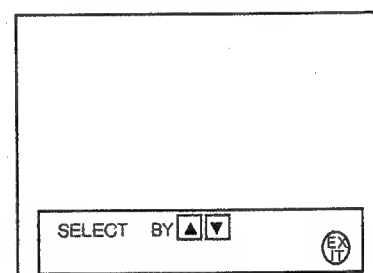
    3) If the UP / DOWN KEY is pressed, the PICTURE MODE screen shown in Fig.3 or the SOUND MODE screen shown in Fig.4 or the OTHERS MODE screen shown in Fig.5 is displayed and the PICTURE, SOUND or OTHERS setting can be performed.

YELLOW

SERVICE MENU

PICTURE	SOUND
THEATER	OTHERS
PIP	
LOW LIGHT	HIGH LIGHT
RF AFC 1	RF AFC 2
I2C BUS CTRL	

SELECT BY ▲▼ –
OPERATE BY ◀ ▶ EXIT BY (EXIT)

Fig. 1 SERVICE MENU·

SELECT BY ▲▼   (EXIT)

Fig. 2

INITIAL
SETTING
VALUE
↓ (Adjust)
SETTING
VALUE

SETTING   ▲▼   ◀▶
ITEM   1. BRIGHT   XXX
    STATUS   XXXXXXXX

Fig. 3 PICTURE MODE

▲▼   ◀▶
1. ATTENUATOR   XXX
STATUS   XXXXXXXX

Fig. 4 SOUND MODE

▲▼   ◀▶
1. OSD POS.   XXX

Fig. 5 OTHERS MODE

4) Select the PIP, The screen shown in Fig.6 will be displayed in the LEFT / RIGHT KEY is pressed.

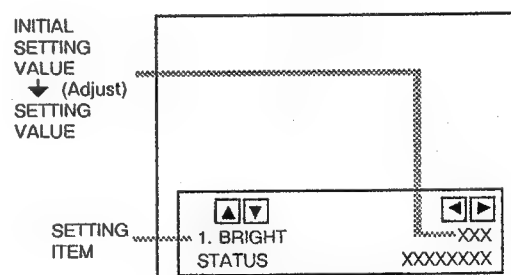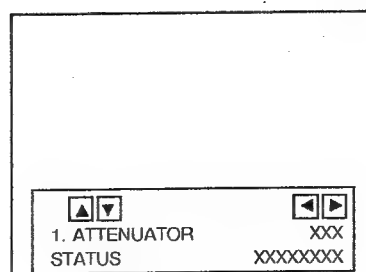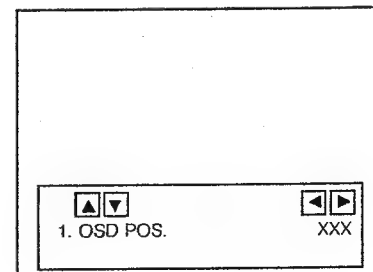5) If the UP / DOWN KEY is pressed, the PIP MODE screen shown in Fig.7 is displayed and the PIP setting can be performed.

6) If any of the THEATER / LOW LIGHT / HIGH LIGHT / RF AFC 1 / RF AFC 2 / I2C BUS CTRL items are selected and the LEFT / RIGHT KEY is pressed, the screens shown in Fig. 8, 9, 10, 11, 12 and 13 are displayed respectively and the settings or verifications can be performed.
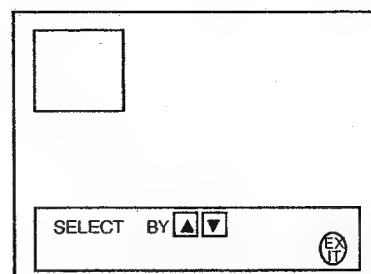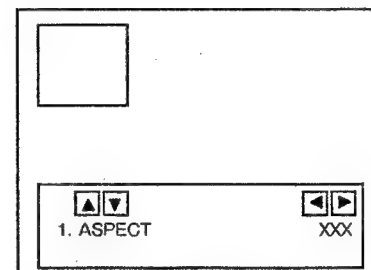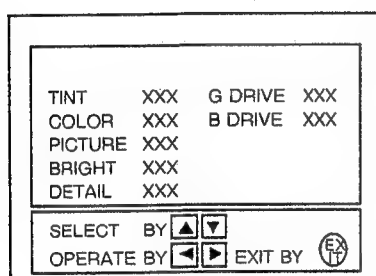
SELECT BY ▲ ▼

Fig. 6

▲ ▼   ◄ ►
1. ASPECT   XXX

Fig. 7 PIP MODE

TINT   XXX   G DRIVE XXX
COLOR   XXX   B DRIVE XXX
PICTURE XXX
BRIGHT   XXX
DETAIL   XXX

SELECT   BY ▲ ▼
OPERATE BY ◄ ► EXIT BY

Fig. 8 THEATER MODE

BRIGHT ◄ ► XXX
XXX   XXX   XXX

Fig. 9 LOW LIGHT MODE

HIGH LIGHT
XXX   XXX

Fig. 10 HIGH LIGHT MODE

RF AFC 1   ON
FINE   XX
STATUS   XXXXXXXX

SELECT   BY ▲ ▼
OPERATE BY ◄ ► EXIT BY
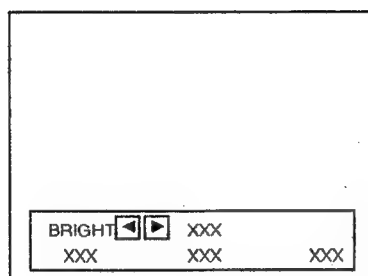
Fig. 11 RF AFC 1 MODE
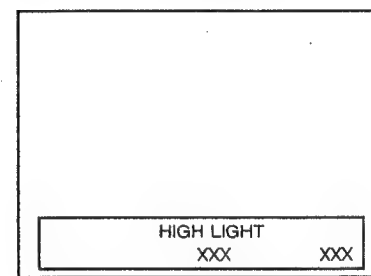
RF AFC 2   ON
FINE   XX
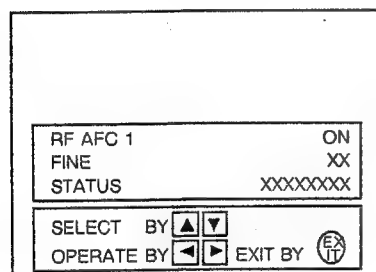
SELECT   BY ▲ ▼
OPERATE BY ◄ ► EXIT BY
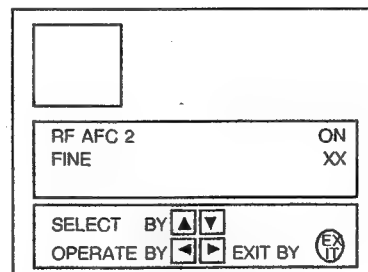
Fig. 12 RF AFC 2 MODE
[Do not adjust]

I2C BUS   ON

SELECT   BY ▲ ▼
OPERATE BY ◄ ► EXIT BY
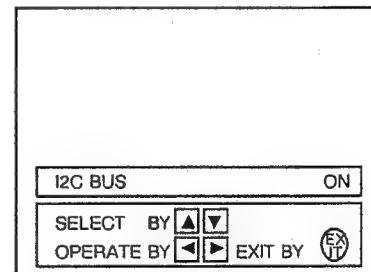
Fig. 13 I2C BUS CTRL MODE
[Fixed ON]

(3) Setting method
1) UP/DOWN key of the MENU
   Selects the SETTING ITEM
2) LEFT/RIGHT key of the MENU
   Setting (adjust) the SETTING VALUE of the SETTING ITEM.
   When the key is released the SETTING VALUE will be stored (memorized).
3) EXIT key   :   Returns to the previous screen.

(4) Releasing SERVICE MENU
1) After returning to the SERVICE MENU upon completion of the setting (adjustment) work, press the EXIT key again.

★ The settings for LOW LIGHT and HIGH LIGHT are described in the WHITE BALANCE page of ADJUSTMENT.

★ The setting for RF AFC 1 are described in the IF VCO page of ADJUSTMENT.

SETTING ITEM

1. BRIGHT   XXX
STATUS   XXXXXXXX

PICTURE MODE
(No.1~No.20 ITEMS)

INITIAL SETTING VALUE
↓ (Adjust)
SETTING VALUE

1. ATTENUATOR   XXX
STATUS   XXXXXXXX

SOUND MODE
(No.1~No.14 ITEMS)

The letters of the selected items are displayed in yellow.

TINT   XXX   G DRIVE   XXX
COLOR   XXX   B DRIVE   XXX
PICTURE   XXX
BRIGHT   XXX
DETAIL   XXX

SELECT   BY ▲ ▼
OPERATE BY ◄ ► EXIT BY (EXIT)

THEATER MODE
(7 ITEMS)

1. OSD POS.   XXX

OTHERS MODE
(No.1~No.9 ITEMS)

RF AFC 1   ON
FINE   XX
STATUS   XXXXXXXX

SELECT   BY ▲ ▼
OPERATE BY ◄ ► EXIT BY (EXIT)

RF AFC 1 MODE
(2 ITEMS)

1. ASPECT   XXX

PIP MODE
(No.1~No.15 ITEMS)

INITIAL SETTING VALUE OF SERVICE MENU

1. Adjustment of the SERVICE MENU is made on the basis of the initial setting values; however, the new setting values which set the screen in its optimum condition may differ from the initial setting.

2. Do not change the Initial Setting Values of the Setting (Adjustment) items not listed in "ADJUSTMENT".

● PICTURE MODE

No.	Setting (Adjustment) item	Variable range	initial setting value
1.	BRIGHT	0 ~ 127	64
2.	PICTURE	0 ~ 127	75
3.	WPS (WHITE PEAK SUPPRESSOR)	0 / 1	1
4.	TV DETAIL	0 ~ 63	42
5.	TV BPF (TV B.P.FILTER)	0 / 1	1
6.	TINT	0 ~ 127	64
7.	COLOR	0 ~ 127	52
8.	EXT BRIGHT	±25	-1
9.	EXT PICT.	±25	±0
10.	EXT DETAIL	0 ~ 63	34
11.	EXT BPF (EXT B.P.FILTER)	0 / 1	1
12.	EXT TINT	±25	+8
13.	EXT COLOR	±25	+3
14.	V SIZE	0 ~ 63	32
15.	V CENTER	0 ~ 7	0
16.	H POSITION	0 ~ 31	22
17.	H AFC	0 / 1	0
18.	BLANKING	0 / 1	0
19.	RF AGC	0 ~ 63	35
20.	PIF VCO	0 ~ 127	64

● SOUND MODE

No.	Setting (Adjustment) item	Variable range	Initial setting value
1.	ATTENUATOR	0 ~ 63	50
2.	BALANCE	0 ~ 63	32
3.	NOISE DET.	0 / 1	1
4.	IN LEVEL (INPUT LEVEL)	0 ~ 63	29
5.	FH MONITOR	0 / 1	0
6.	STEREO VCO	0 ~ 63	16
7.	PILOT CAN. (PILOT CANCELER)	0 / 1	0
8.	FILTER	0 ~ 63	24
9.	LOW SEP. (LOW SEPARATION)	0 ~ 63	28
10.	HI SEP. (HI SEPARATION)	0 ~ 63	23
11.	5FH MON. (5FH MONITOR)	0 / 1	0
12.	SAP VCO	0 ~ 63	21
13.	IN GAIN (INPUT GAIN)	0 / 1	0
14.	FIL.OFFSET	0 ~ 10	7

● THEATER MODE

Setting (Adjustment) item	Variable range	initial setting value
TINT	±20	±00
COLOR	±20	-2
PICTURE	±20	-15
BRIGHT	±20	±00
DETAIL	±15	-3
G DRIVE	-80 ~ +50	-25
B DRIVE	-80 ~ +50	-72

● OTHERS MODE

NO.	Setting (Adjustment) item	Variable range	initial setting value
1.	OSD POS.	0 ~ 7	0
2.	CCD POS. (CLOSED CAPTION DECODER POS.)	0 ~ 15	5
3.	SEARCH LN (SEARCH LINE)	0 ~ 15	0
4.	SEARCH MD (SEARCH MODE)	0 / 1	0
5.	OSD STABI	0 / 1	0
6.	LOCK DET	0 / 1	0
7.	MENU COLOR	-30 ~ 0	-10
8.	MENU PICT	-30 ~ 0	-12
9.	MENU BR1	-30 ~ 0	-12

● PIP MODE

NO.	Setting (Adjustment) item	Variable range	initial setting value
1.	ASPECT	0 ~ 31	23
2.	V POSITION	0 ~ 127	20
3.	LOWER POS.	0 ~ 127	61
4.	H POSITION	0 ~ 127	39
5.	RIGHT POS.	0 ~ 127	77
6.	V AREA	0 ~ 3	2
7.	H AREA	0 ~ 3	2
8.	CLAMP POS.	0 ~ 3	1
9.	FRAME	0 ~ 3	3
10.	Y / C DELAY	0 ~ 7	4
11.	TINT	0 ~ 127	30
12.	COLOR	0 ~ 127	85
13.	CONTRAST	0 ~ 127	65
14.	G GAIN	0 ~ 127	80
15.	B GAIN	0 ~ 127	90

● LOW LIGHT MODE

Setting (Adjustment) item	Variable range	initial setting value
R CUTOFF	0 ~ 255	20
G CUTOFF	0 ~ 255	20
B CUTOFF	0 ~ 255	20

● HIGH LIGHT MODE

Setting (Adjustment) item	Variable range	initial setting value
G DRIVE	0 ~ 255	128
B DRIVE	0 ~ 255	128

● RF AFC 1 MODE

Setting (Adjustment) item	Variable range	initial setting value
RF AFC 1	ON / OFF	ON
FINE	-77 ~ +77	± 00

● RF AFC 2 MODE

Setting (Adjustment) item	Variable range	initial setting value	
RF AFC 2	ON / OFF	ON	Do not adjust
FINE	-77 ~ +77	XX	

● I2C BUS CTRL MODE

Setting (Adjustment) item	Variable range	initial setting value
I2C BUS	ON / OFF	Fixed ON

■ ADJUSTMENTS
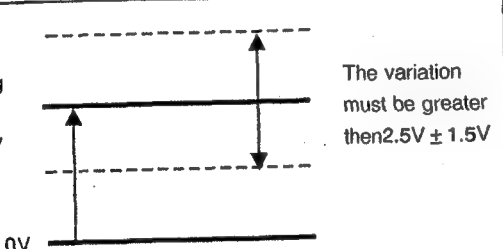
B1 VOLTAGE CHECK

Item	Measuring instrument	Test point	Adjustment part	Description
B1 voltage check	DC Voltmeter	B1 (B1 Connector 1 pin) (TP-91) TP-E(⏚)(B1 Connector 3 pin)		1. Receive a monoscope pattern signal. 2. Connect the DC voltmeter to B1 connector 1 pin (TP-91) and TP-E (⏚) (B1 connector 3 pin). 3. Confirm that the voltage is DC 136V ±3V.

ADJUSTMENT OF IF. VCO

Item	Measuring instrument	Test point	Adjustment part	Description
IF VCO adjustment	Oscilloscope Signal generator	CW Connector 3 pin	CW TRANSF. (T131) [RF AFC 1] MODE	1. Receive the color bar signal. 2. Connect the oscilloscope to pin 3 of the CW connector. 3. Select the [RF AFC 1] MODE of the SERVICE MENU. Set the RF AFC to OFF and FINE to ±00. 4. Turn T131, verify that the AFC output voltage changes quickly between 2.5V ±1.5V and then adjust the voltage to 2.5V ±0.2V. 5. Return the RF AFC to ON. 6. Cancel the service menu and check that no irregularities are displayed on the screen.If there any irregularities, select [RF AFC 1] MODE on the service menu and verify that FINE is 00 when the AFC is ON. Repeat steps 3 to 5 if necessary.

AFC setting voltage : 2.5V ±0.2V

The variation must be greater then 2.5V ±1.5V

0V

ADJUSTMENT OF RF AGC
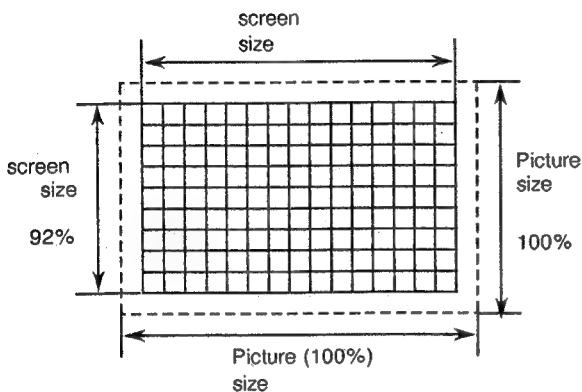
Item	Measuring instrument	Test point	Adjustment part	Description
RF.AGC adjustment			No.19 RF AGC	1. Receive a broadcast. 2. Select "No.19 RF AGC" of the PICTURE MODE. 3. Press the MUTE key and turn off color. 4. With the MENU LEFT key, get noise in the screen picture.(0 side of setting value) 5. Press the MENU RIGHT key and stop when noise disappears from the screen. 6. Change to other channels and make sure that there is no irregularity. 7. Press the MUTE key and get color out.

ADJUSTMENT OF FOCUS
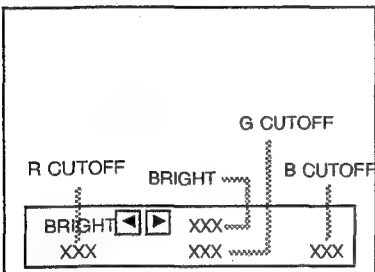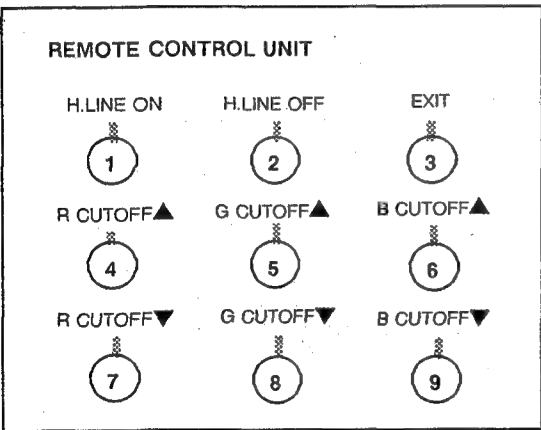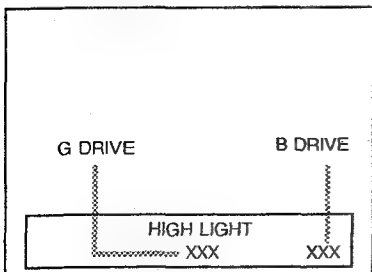
Item	Measuring instrument	Test point	Adjustment part	Description
FOCUS adjustment	Signal generator		FOCUS VR [built-in HVT]	1. Receive a crosshatch signal. 2. While looking at the screen, adjust FOCUS VR so that the vertical and horizontal lines will be clear and in fine detail. 3. Make sure that the picture is in focus even when the screen gets darkened.

ADJUSTMENT OF DEFLECTION CIRCUIT
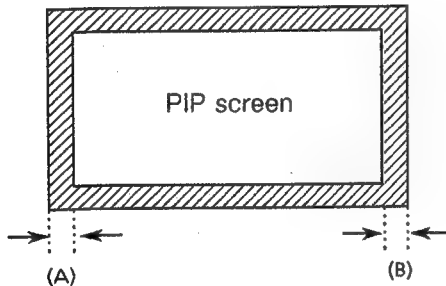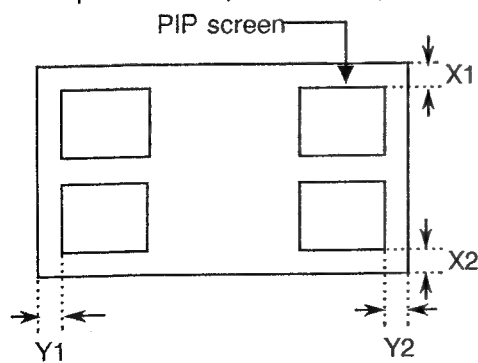
Item	Measuring instrument	Test point	Adjustment part	Description
V.CENTER, V.SIZE and V.POSITION Adjustment	Signal generator		No.14 V SIZE No.15 V CENTER V.CENTER SW (S1421)	1. Receive a crosshatch signal. 2. Make sure that the "No.15 V CENTER" of the PICTURE SERVICE MODE is 0. 3. Use the LIFT / RIGHT keys of the MENU to set the initial setting value for the No.14 V SIZE. 4. Adjust the vertical SCREEN size to 92% with the No.14 V SIZE and S1421 (V.CENTER SW).
H.POSITON Adjustment	Signal generator		No.16 H POSITION	1. Receive a crosshatch signal. 2. select the "No.16 H POSITION" of the PICTURE MODE. 3. Set the initial setting value of the "No.16 H POSITION" with the LEFT / RIGHT key of the MENU. 4. Adjust the "No.16 H POSITION" until the screen will be horizontally centered.

screen size

screen size 92%

Picture size 100%

Picture (100%) size

ADJUSTMENT OF VIDEO / CHROMA CIRCUIT

Item	Measuring instrument	Test point	Adjustment item	Description
WHITE BALANCE (Low Light) adjustment	Signal generator		BRIGHT R CUTOFF G CUTOFF B CUTOFF SCREEN VR	1. Receive a monoscope pattern signal. 2. Select the [LOW LIGHT] MODE from the SERVICE MENU. 3. Set the initial setting value of "BRIGHT" with the LEFT / RIGHT Key of the Remote control unit. 4. Set the initial setting value of "R CUTOFF", "G CUTOFF" and "B CUTOFF" with the ④ to ⑨ keys of the Remote control unit. 5. Display one horizontal line by pressing the ① key of the Remote control unit. 6. Turn the screen VR all the way to the left. 7. Turn the screen VR gradually to the right from the left until either one of the red, blue or green colors appears slightly. 8. Adjust the two colors which did not appear until the one horizontal line that is displayed becomes white using the ④ to ⑨ keys of the Remote control unit. 9. Turn the screen VR until the first horizontal line is displayed slightly. 10. Press the ② key to return to the regular screen. 11. Check the PIP brightness and adjust it by the screen VR if it is not optimal. * The ③ EXIT key is the cancel key for the WHITE BALANCE.

[LOW LIGHT] MODE

```
                              G CUTOFF
   R CUTOFF    BRIGHT         B CUTOFF
   BRIGHT◄►  XXX
   XXX       XXX       XXX
```

REMOTE CONTROL UNIT

H.LINE ON	H.LINE OFF	EXIT
(1)	(2)	(3)
R CUTOFF▲	G CUTOFF▲	B CUTOFF▲
(4)	(5)	(6)
R CUTOFF▼	G CUTOFF▼	B CUTOFF▼
(7)	(8)	(9)

Item	Measuring instrument	Test point	Adjustment item	Description
WHITE BALANCE (High Light) adjustment	Signal generator		G DRIVE B DRIVE	1. Receive a monoscope pattern signal. 2. Select the [HIGH LIGHT] MODE in the SERVICE MENU. 3. Set the initial setting value of "G DRIVE" and "B DRIVE" with the ⑤, ⑥, ⑧ and ⑨ keys of the Remote control unit. 4. Adjust the screen unit it becomes white using the ⑤, ⑥, ⑧ and ⑨ keys of the Remote control unit. * The ③ EXIT key is the cancel key for the WHITE BALANCE.

[HIGH LIGHT] MODE

```
   G DRIVE          B DRIVE
        HIGH LIGHT
        XXX      XXX
```

Remote control unit
① key : H.LINE ON
② key : H.LINE OFF
③ key : EXIT
⑤ key : G DRIVE ▲
⑥ key : B DRIVE ▲
⑧ key : G DRIVE ▼
⑨ key : B DRIVE ▼

| Item	Measuring instrument	Test point	Adjustment item	Description
SUB BRIGHT adjustment			No.1 BRIGHT	1. Receive a broadcast. 2. Select "No.1 BRIGHT" of the PICTURE MODE. 3. Set the initial setting value of the "No.1 BRIGHT" with the LEFT / RIGHT key of the MENU. 4. If the brightness is not the best with the initial setting value, make fine adjustment of the "No.1 BRIGHT" unit you get the optimum brightness.
SUB CONTRAST adjustment			No.2 PICTURE	1. Receive a broadcast. 2. Select "No.2 PICTURE" of the PICTURE MODE. 3. Set the initial setting value of the "No.2 PICTURE" with the LEFT / RIGHT key of the MENU. 4. If the contrast is not the best with the initial setting value, make fine adjustment of the "No.2 PICTURE" unit you get the optimum contrast.
SUB COLOR adjustment			No.7 COLOR	1. Receive a broadcast. 2. Select "No.7 COLOR" of the PICTURE MODE. 3. Set the initial setting value of the "No.7 COLOR" with the LEFT / RIGHT key of the MENU. 4. If the color is not the best with the initial setting value, make fine adjustment of the "No.7 COLOR" unit you get the optimum color.
SUB TINT adjustment			No.6 TINT	1. Receive a broadcast. 2. Select "No.6 TINT" of the PICTURE MODE. 3. Set the initial setting value of the "No.6 TINT" with the LEFT / RIGHT key of the MENU. 4. If the tint is not the best with the initial setting value, make fine adjustment of the "No.6 TINT" unit you get the optimum tint.

ADJUSTMENT OF PIP CIRCUIT

Item	Measuring instrument	Test point	Adjustment part	Description
RF.AGC (NOISE) adjustment			NOISE VR (R8123) [AV SELECTOR PWB]	1. Receive a broadcast. 2. Turn the NOISE VR so that noise appear in the picture. 3. Then adjust the NOISE VR in the direction where noise disappears from the picture, and stop it where noise has disappeared from the picture. 4. Select another channel, and make sure that there occurs no trouble.
PIP WHITE BALANCE adjustment	Signal generator		No.14 G GAIN No.15 B GAIN	1. Receive a black-and-white signal. (Color off) 2. Select the "No.14 G GAIN, No.15 B GAIN" of the PIP SERVICE MODE. 3. Set the corresponding initial setting values with the LEFT/RIGHT key of the menu. 4. Adjust the "No.14 G GAIN, No.15 B GAIN" until the screen becomes white.
PIP FRAME WIDTH adjustment	Signal generator		No. 9 FRAME	1. Receive a black-and-white signal. (Color off) 2. Select the "No.9 FRAME" of the PIP SERVICE MODE. 3. Adjust the "No.9 FRAME" so that the width of the PIP screen frame will be left to right equal (A = B).

PIP screen

(A)   (B)

| PIP DISPLAY POSITION adjustment | Signal generator | | No.2 V POSITION

No.3 LOWER POS.

No.4 H POSITION

No.5 RIGHT POS. | 1. Receive a black-and-white signal. (Color off)
2. Select the "No.2 V POSITION" of the PIP SERVICE MODE.
3. Set the initial setting value of the No.2 V POSITION" with the LEFT/RIGHT key of the menu.
4. Adjust the "No.2 V POSITION" so that the position of the PIP screen edge of upper will be at X1 as shown.
5. Adjust the corresponding modes of "No.3, No.4, No.5" with the same steps as 2~4 above. |

PIP screen

X1

X2

Y1   Y2

PIP SERVICE MODE NO.	Item	PIP SETTING POSITION Approx. (mm)
No.2	UPPER POSITION (X1)	30
No.3	LOWER POSITION (X2)	30
No.4	H POSITION (Y1)	40
No.5	RIGHT POSITION (Y2)	40

Item	Measuring instrument	Test point	Adjustment part	Description
PIP SUB CONTRAST adjustment			No.13 CONTRAST	1. Receive a broadcast. 2. Select "No.13 CONTRAST" of the PIP SERVICE MODE. 3. Set the initial setting value of the "No.13 CONTRAST" with the LEFT/RIGHT key of the menu. 4. If the contrast is not the best with the initial setting value, make fine adjustment of the "No.13 CONTRAST" until you get the optimum contrast.
PIP SUB COLOR adjustment			No.12 COLOR	1. Receive a broadcast. 2. Select "No.12 COLOR" of the PIP SERVICE MODE. 3. Set the initial setting value of the "No.12 COLOR" with the LEFT/RIGHT key of the menu. 4. If the color is not the best with the initial setting value, make fine adjustment of the "No.12 COLOR" until you get the optimum color.
PIP SUB TINT adjustment			No.11 TINT	1. Receive a broadcast. 2. Select "No.11 TINT" of the PIP SERVICE MODE. 3. Set the initial setting value of the "No.11 TINT" with the LEFT/RIGHT key of the menu. 4. If the tint is not the best with the initial setting value, make fine adjustment of the "No.11 TINT" until you get the optimum tint.

ADJUSTMENT OF MTS CIRCUIT

Item	Measuring instrument	Test point	Adjustment part	Description
MTS INPUT LEVEL check			No.4 IN LEVEL	1. Select the "No.4 IN LEVEL" of the SOUND MODE. 2. Verify that the "No.4 IN LEVEL" is set at its initial setting value.
MTS STEREO VCO adjustment	Signal generator Frequency counter	MPX Connector 2 pin RTV [AV SELEC-TOR PWB]	No.5 FH MONITER No.6 STEREO VCO	1. Receive a RF signal (nonmodulated sound signal) from the antenna terminal. 2. Select the "No.5 FH MONITER" of SOUND MODE, and change the setting value from 0 to 1. 3. Connect the Frequency Counter to pin 2 of MPX connector. 4. Select the "No.6 STEREO VCO". 5. Set the initial setting value of the "No.6 STEREO VCO" with the LEFT/RIGHT key of the menu. 6. Adjust the "No.6 STEREO VCO" so that the Frequency Counter will display $15.73KHz \pm 0.1KHz$. 7. Select the "No.5 FH MONITER" of the SOUND MODE, and reset the setting value from 1 to 0.

Item	Measuring instrument	Test point	Adjustment part	Description
MTS SAP VCO adjustment	Signal generator Frequency counter	MPX Connector 4 pin SDA 3 pin GND 2 pin RTV [AV SELEC-TOR PWB]	No.11 5FH MON. No.12 SAP VCO	1. Receive a RF signal (non modulated sound signal) from the antenna terminal. 2. Connect between pin 4 of MPX connector and GND (Pin 3 of MPX connector) through 1MΩ Resistor. 3. Select the "No.11 5FH MON." of the SOUND MODE, and reset the setting value from 0 to 1. 4. Connect the Frequency Counter to pin 2 (R.OUT) of MPX connector. 5. Select the "No.12 SAP VCO". 6. Set the initial setting value of "No.12 SAP VCO" with the LEFT/RIGHT key of the menu. 7. Adjust the "No.12 SAP VCO" so that the Frequency Counter will display 78.67KHz ± 0.5KHz. 8. Select the "No.11 5FH MON." of the SOUND MODE, and reset the setting value from 1 to 0.
MTS FILTER check			No.8 FILTER	1. Select the "No.8 FILTER" of the SOUND MODE. 2. Verify that the "No.8 FILTER" is set at its initial setting value.
MTS SEPARATIO-N adjustment	TV audio multiplex signal gen-erator Oscillo-scope	MPX Connector 1 pin LTV 2 pin RTV [AV SELEC-TOR PWB]	No.9 LOW SEP. No.10 HI SEP.	1. Input a stereo L signal (300Hz) from the TV Audio Multiplex Signal Generator to the antenna terminal. 2. Connect an oscilloscope to pin 1 (L OUT) of MPX connector, and display one cycle portion of the 300Hz signal. 3. Change the connection of the oscilloscope to pin 2 (R OUT) of MPX connector, and enlarge the voltage axis. 4. Select the "No.9 LOW SEP." of the SOUND MODE. 5. Set the initial setting value of the "No.9 LOW SEP." with the LEFT/RIGHT key of the menu. 6. Adjust the "No.9 LOW SEP." so that the stroke element of the 300Hz signal will become minimum. 7. Change the signal to 3kHz, and similarly adjust the "No.10 HI SEP.".

L-Channel signal waveform   R-Channel crosstalk portion

Minimum

1 cycle
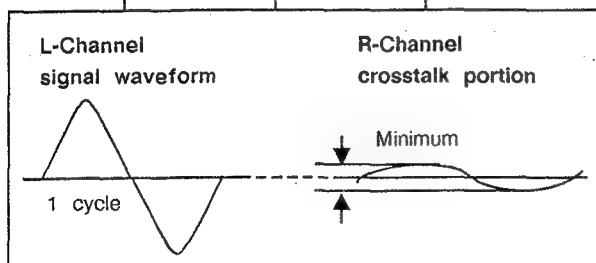
HOW TO CHECK THE HIGH VOLTAGE HOLD DOWN CIRCUIT

1. HIGH VOLTAGE HOLD DOWN CIRCUIT

After repairing the high voltage hold down circuit shown in Fig. 1.

This circuit shall be checked to operate correctly.

2. CHECKING OF THE HIGH VOLTAGE HOLD DOWN CIRCUIT

(1) Turn the POWER SW ON.

(2) As shown in Fig. 2, set the resistor (between $\boxed{X}$ connector $\boxed{1}$ & $\boxed{3}$).

(3) Make sure that the screen picture disappears.

(4) Temporarily unplug the power cord.

(5) Remove the resistor(between $\boxed{X}$ connector $\boxed{1}$ & $\boxed{3}$).

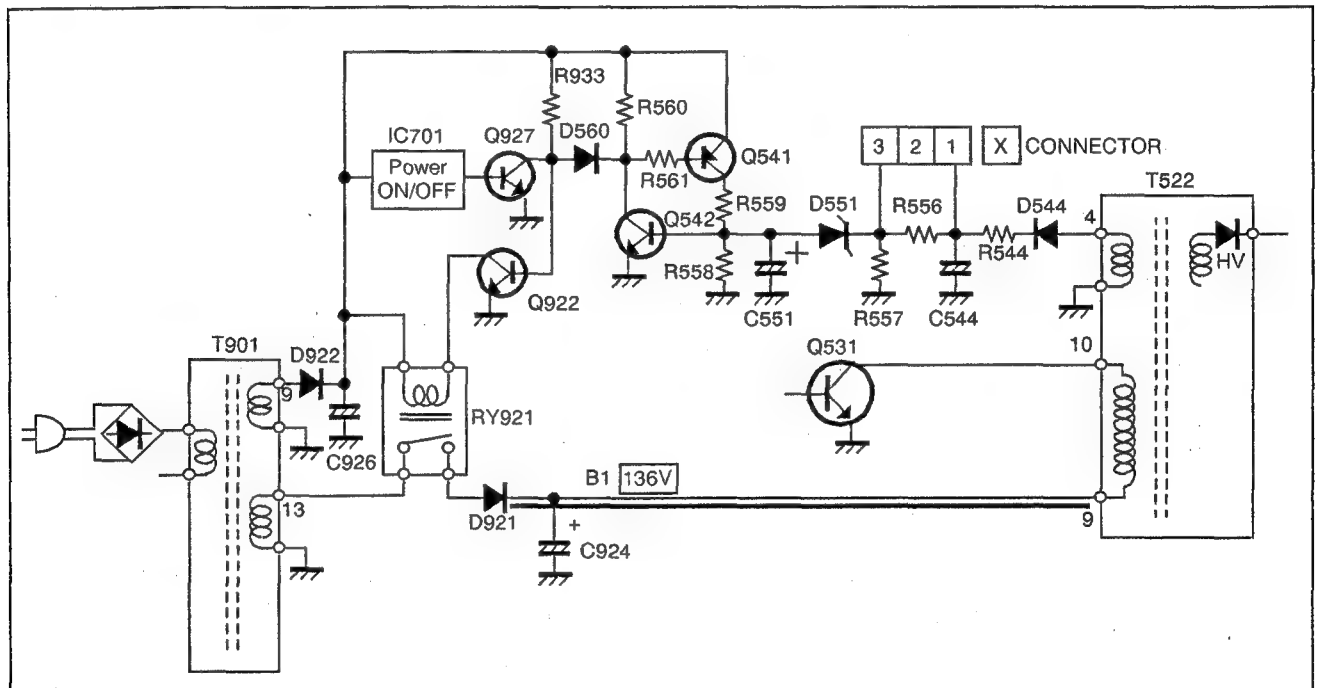(6) Again plug the power cord, make sure that the normal picture is displayed on the screen.

Fig. 1
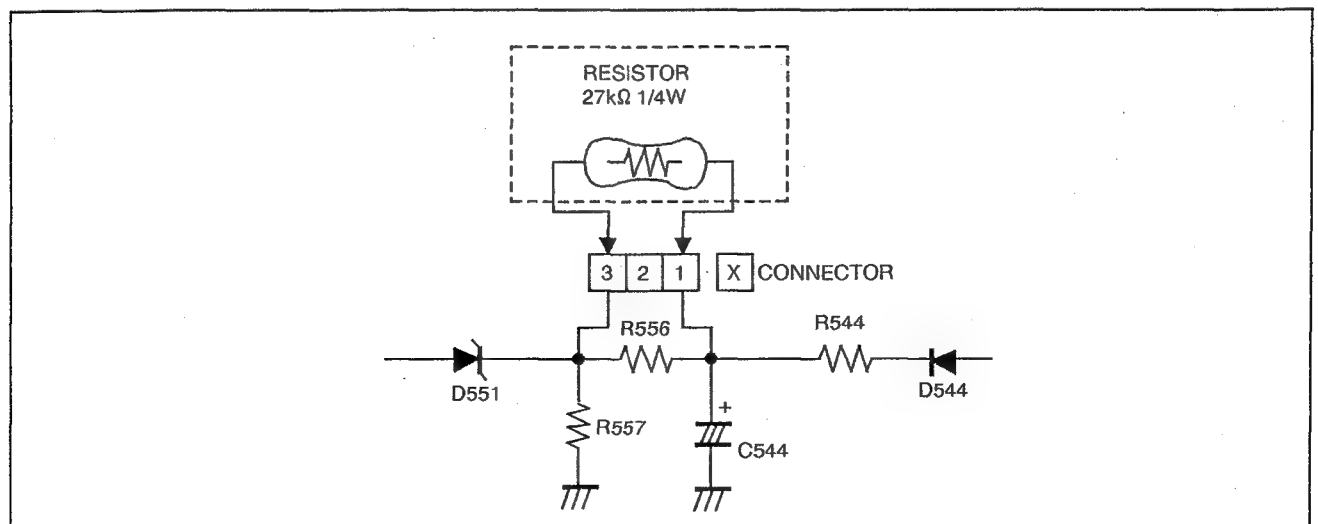
Fig. 2

PARTS LIST

CAUTION

■ The parts identified by the ⚠ symbol are important for the safety . Whenever replacing these parts, be sure to use specified ones to secure the safety .

■ The parts not indicated in this Parts List and those which are filled with lines —— in the Parts No. columns will not be supplied .

■ P. W. Board Ass'y will not be supplied, but those which are filled with the Parts No. in the Parts No. columns will be supplied .

■ As a rule, the resistors and capacitors which are indicated as shown in "HOW TO EXPRESS PARTS NUMBERS OF STANDARD PARTS" are not shown in the list of the parts on the board .
When ordering the service parts, confirm the resistance/rated power, capacitance/rated voltage, and type of the parts, then order by the part No. indicated according to "HOW TO EXPRESS PARTS NUMBERS OF STANDARD PARTS" .

ABBREVIATIONS OF RESISTORS, CAPACITORS AND TOLERANCES

RESISTORS		CAPACITORS	
C R	Carbon Resistor	C CAP.	Ceramic Capacitor
F R	Fusible Resistor	E CAP.	Electrolytic Capacitor
P R	Plate Resistor	M CAP.	Mylar Capacitor
V R	Variable Resistor	HV CAP.	High Voltage Capacitor
HV R	High Voltage Resistor	MF CAP.	Metalized Film Capacitor
MF R	Metal Film Resistor	MM CAP.	Metalized Mylar Capacitor
MG R	Metal Glazed Resistor	MP CAP.	Metalized Polystyrol Capacitor
MP R	Metal Plate Resistor	PP CAP.	Polypropylene Capacitor
OM R	Metal Oxide Film Resistor	PS CAP.	Polystyrol Capacitor
CMF R	Coating Metal Film Resistor	TF CAP.	Thin Film Capacitor
UNF R	Non-Flammable Resistor	MPP CAP.	Metalized Polypropylene Capacitor
CH V R	Chip Variable Resistor	TAN. CAP.	Tantalum Capacitor
CH MG R	Chip Metal Glazed Resistor	CH C CAP.	Chip Ceramic Capacitor
COMP. R	Composition Resistor	BP E CAP.	Bi-Polar Electrolytic Capacitor
LPTC R	Linear Positive Temperature Coefficient Resistor	CH AL E CAP.	Chip Aluminum Electrolytic Capacitor
		CH AL BP CAP.	Chip Aluminum Bi-Polar Capacitor
		CH TAN. E CAP.	Chip Tantalum Electrolytic Capacitor
		CH AL BP E CAP.	Chip Tantalum Bi-Polar Electrolytic Capacitor

TOLERANCES									
F	G	J	K	M	N	R	H	Z	P
±1%	±2%	±5%	±10%	±20%	±30%	+30% - 10%	+50% - 10%	+80% - 20%	+100% - 0%

HOW TO EXPRESS PARTS NUMBERS OF STANDARD PARTS

■ RESISTOR

Q R ☐ ☐ ☐ ☐ ☐ — ◯ ◯ ◯

Kind Rated Power Shape Tolerance Resistance

Symbol	Part Name
C	COMP.R
D	C R
S	CH MG R

Symbol	Rated Power
0 1	1 w
1 2	1/2 w
1 4	1/4 w
1 6	1/6 w
1 8	1/8 w

Symbol	Shape
1	Straight lead
8	Chip

Indicate with first two-figure expressed by Ω and following 0.
please note that,in case of resistance less than 10 Ω, a letter "R"will be effective as point.

EX.
$$2.2\,\Omega = \qquad\qquad 2R2$$
$$470\,\Omega = 47\times10^1 \rightarrow 471$$
$$150k\Omega = 15\times10^4 \rightarrow 154$$

■ CAPACITOR

Q ☐ ☐ ☐ ☐ ☐ ☐ — ◯ ◯ ◯

Kind Shape Rated Voltage Tolerance Capacitance

Symbol	Part Name
CS	C CAP.
CS	CH C CAP.
ET	E CAP.
FM	M CAP.

5Figure / 6Figure	0	1	2
A		10V	100V
C		16V	160V
D			200V
E		25V	250V
H		50V	500V
J	6.3V	63V	
V		35V	

Indicate with first two-figure expressed by pF and following 0.
Please note that,in case of capacitance less than 10 pF a letter "R" will be effective as point.
EX
$$5pF = \qquad\qquad 5R0$$
$$1000pF = 10\times10^2 \rightarrow 102$$
$$47\mu F = 47\times10^6 \rightarrow 476$$

Symbol	Shape
1	Straight lead
1	Leads in the same direction
8	Chip
A	Leads in the same direction (compact part)

CONTENTS

USING P.W. BOARD & REMOTE CONTROL UNIT

P.W.B ASS'Y \ Model	AV-27750 (US&CA)
MAIN P.W.B	SGK-1012A-M2
CRT SOCKET P.W.B	SGK-3012A-M2
FRONT CONTROL P.W.B	SGK-4011A-M2
AV SELECTOR P.W.B	SGK-8012A-M2
AV JACK P.W.B	SGK0J002A-M2
PIP P.W.B	SGK0P002A-M2
REMOTE CONTROL UNIT	RM-C742-1C

EXPLODED VIEW PARTS LIST

⚠ Ref. No.		Part No.	Part Name	Description	Local
⚠	1	CM12793-C02-MA	FRONT CABI.ASSY		*
⚠	2	CE41329-00CJ2	DEGAUSSING COIL	L01	*
⚠	3	A68ADT25X01	PICTURE TUBE(ITC	V01 Inc.DY	*
	4	CHGB0015-0B	BRAIDED ASSY		*
	5	CHGB0016-0C	BRAIDED WIRE		*
⚠	6	CEBSS12D-04KJ2	SPEAKER	(×2)SP01,SP02	*
	7	CM35776-B01-H	PUSH KNOB		*
	8	CM12689-B01-VA	CHASSIS BASE		*
⚠	9	CJ28333-00AJ1	H.V.T.	T1522	*
	10	CEGA005-001	ANT SPLITTER		*
⚠	11	CM23036-B01-VA	TERMINAL BOARD		*
	12	CM48140-A03-A	POWER CORD CLAMP		*
⚠	13	QMPD070-200-E2	POWER CORD		*
	14	SPSP3008Z	SCREW		
	15	SBSB3010Z	TAPPING SCREW	(×4)	*
⚠	16	CM12415-B62-MA	REAR COVER		*
⚠	17	CM23034-001-A	RATING LABEL	(US)	*
⚠	17	CM22999-001-A	RATING LABEL	(CA)	*
	18	GBSB4016Z	TAPPING SCREW	(×9)	*
	19	CM35983-001-H	REMOCON WINDOW		*

EXPLODED VIEW

CRT SOCKET PWB

FRONT CONTROL PWB

CHASSIS BASE

MAIN PWB

AV SELECTOR PWB

TUNER

PIP PWB

AV JACK PWB

17 (US)

17 (CA)
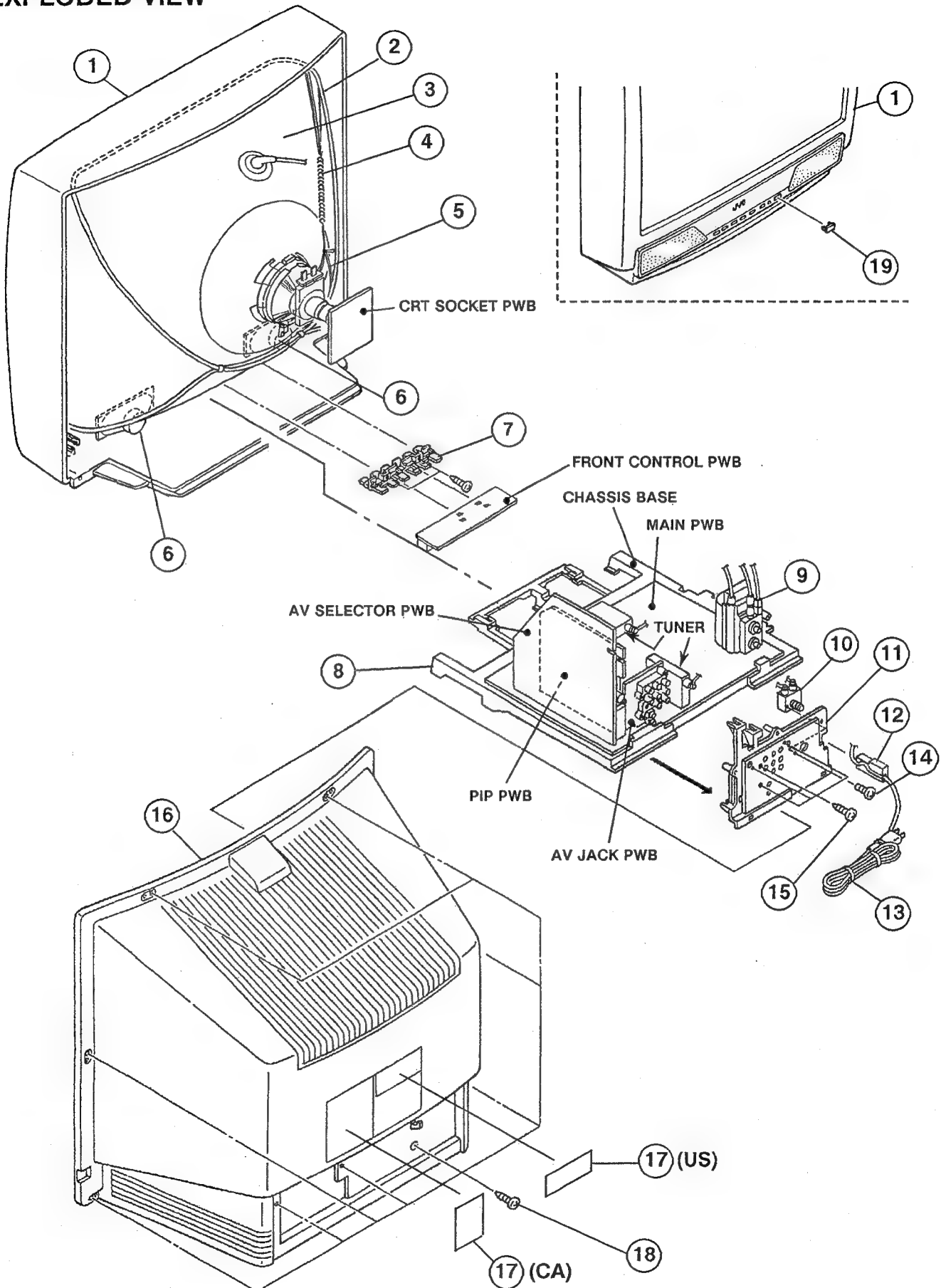
PRINTED WIRING BOARD PARTS LIST
MAIN PW BOARD ASS'Y (SGK-1012A-M2)

⚠ Symbol No.	Part No.	Part Name	Description			Local
R E S I S T O R						
R1001	QRD149J-5R6S	C R	5.6 Ω	1/4W	J	*
R1423	QRX029J-R82A	MF R	0.82 Ω	2W	J	*
R1524-25	QRG039J-182A	OM R	1.8kΩ	3W	J	*
R1533	QRG039J-103A	OM R	10kΩ	3W	J	*
R1541	QRD129J-150S	C R	15 Ω	1/2W	J	*
R1542	QRX019J-1R2S	MF R	1.2 Ω	1W	J	*
R1544	QRD129J-4R7S	C R	4.7 Ω	1/2W	J	*
⚠ R1556	QRV141F-7501AY	MF R	7.5kΩ	1/4W	F	*
⚠ R1557	QRV141F-2871AY	MF R	2.87kΩ	1/4W	F	*
R1605	QRX029J-2R2	MF R	2.2 Ω	2W	J	*
R1712	NCB21HK-103AY	CHIP CAP.	0.01μF	50V	K	*
R1771	QRG019J-820S	OM R	82 Ω	1W	J	*
⚠ R1901	QRF074K-R47	UNF R	0.47 Ω	7W	K	*
R1903	QRX029J-R47A	MF R	0.47 Ω	2W	J	*
R1904	QRX029J-R39A	MF R	0.39 Ω	2W	J	*
R1905	QRG019J-150S	OM R	15 Ω	1W	J	*
R1906	QRD149J-1R0S	C R	1 Ω	1/4W	J	*
R1909	QRD149J-222S	C R	2.2kΩ	1/4W	J	*
R1910	QRD149J-102S	C R	1kΩ	1/4W	J	*
R1911	QRX129J-R68A	MF R	0.68 Ω	1/2W	J	
R1924	QRG019J-331S	OM R	330 Ω	1W	J	*
R1927	QRD149J-3R3S	C R	3.3 Ω	1/4W	J	*
⚠ R1998	QRZ0111-275U	C R	2.7MΩ	1/2W		*
C A P A C I T O R						
C1006	NCB21HK-103AY	CHIP CAP.	0.01μF	50V	K	*
C1011	NCB21HK-103AY	CHIP CAP.	0.01μF	50V	K	*
C1102	NCB21HK-103AY	CHIP CAP.	0.01μF	50V	K	*
C1104-05	NCB21HK-103AY	CHIP CAP.	0.01μF	50V	K	*
C1106	NCT03CH-680AY	CHIP CAP.	68pF	1600V	H	*
C1107	NCB21HK-103AY	CHIP CAP.	0.01μF	50V	K	*
C1131	QFV71HJ-154MZ	TF CAP.	0.15μF	50V	J	*
C1132	QFN31HK-152ZJ1	M CAP.	1500pF	50V	K	*
C1134	NCB21HK-102AY	CHIP CAP.	1000pF	50V	K	*
C1135	NCB21HK-103AY	CHIP CAP.	0.01μF	50V	K	*
C1162	NCB21HK-103AY	CHIP CAP.	0.01μF	50V	K	*
C1163	NCT03CH-220AY	CHIP CAP.	22pF	1600V	H	*
C1164	NCT03CH-470AY	CHIP CAP.	47pF	1600V	H	*
C1166	NCB21HK-103AY	CHIP CAP.	0.01μF	50V	K	*
C1168-70	NCB21HK-103AY	CHIP CAP.	0.01μF	50V	K	*
C1205	QFV71HJ-104MZ	TF CAP.	0.1μF	50V	J	*
C1208	NCT03CH-680AY	CHIP CAP.	68pF	1600V	H	*
C1226	NCT03CH-681AY	CHIP CAP.	680pF	1600V	H	*
C1228	QFV71HJ-104MZ	TF CAP.	0.1μF	50V	J	*
C1301	NCB21HK-103AY	CHIP CAP.	0.01μF	50V	K	*
C1302	NCT03CH-100AY	CHIP CAP.	10pF	1600V	H	*
C1303	QFLC1HK-223MZ	M CAP.	0.022μF	50V	K	*
C1306	NCB21HK-103AY	CHIP CAP.	0.01μF	50V	K	*
C1402	QEE61CK-225BZ	TAN.CAP.	2.2μF	16V	K	
C1403	NCB21HK-102AY	CHIP CAP.	1000pF	50V	K	*
C1421	NCB21HK-103AY	CHIP CAP.	0.01μF	50V	K	*
C1424	QETC1VM-107Z	E CAP.	100μF	35V	M	*
C1425	QETC1VM-477Z	E CAP.	470μF	35V	M	*
C1426	QFLC2AK-563MZ	M CAP.	0.056μF	100V	K	*
C1428	QFV71HJ-684MZ	TF CAP.	0.68μF	50V	J	*
C1429	QFV71HJ-224MZ	TF CAP.	0.22μF	50V	J	*
C1503	NCB21HK-103AY	CHIP CAP.	0.01μF	50V	K	*
C1523	QETC2CM-105Z	E CAP.	1μF	160V	M	*
⚠ C1531	QFZ0117-3001S	MPP CAP.	3000pF1.4kVH±2.5%			*
⚠ C1532	QFZ0117-1202S	MPP CAP.	0.012μF1.4kVH±2.5%			*
⚠ C1533	QFN32DK-124J1	M CAP.	0.12μF	200V	K	*
C1534	QEHC2EM-225MZ	E CAP.	2.2μF	250V	M	*

△ Symbol No.	Part No.	Part Name	Description			Local
CAPACITOR						
△ C1535	QFZ0119-434L	MPP CAP.	0.43 μF	200V	±3%	*
C1538	QEZ0203-107R	E CAP.	100 μF	160V		
C1541	QETB2EM-336	E CAP.	33 μF	250V	M	*
C1542	QETB1VM-108	E CAP.	1000 μF	35V	M	*
C1544	QETC1VM-107Z	E CAP.	100 μF	35V	M	*
C1545	QFLC2AJ-393MZ	M CAP.	0.039 μF	100V	J	*
C1546	QFV71HJ-473MZ	TF CAP.	0.047 μF	50V	J	*
C1578-79	QEM61HK-475MZ	E CAP.	4.7 μF	50V	K	
C1701-02	NCB21HK-103AY	CHIP CAP.	0.01 μF	50V	K	*
C1704	NCB21HK-103AY	CHIP CAP.	0.01 μF	50V	K	*
C1705	NCT03CH-181AY	CHIP CAP.	180 pF	1600V	H	*
C1709	NCT03CH-221AY	CHIP CAP.	220 pF	1600V	H	*
C1710-11	NCT03CH-390AY	CHIP CAP.	39 pF	1600V	H	*
C1712	NCT03CH-270AY	CHIP CAP.	27 pF	1600V	H	*
C1713	NCT03CH-150AY	CHIP CAP.	15 pF	1600V	H	*
C1714	NCB21HK-103AY	CHIP CAP.	0.01 μF	50V	K	*
C1716	NCB21HK-103AY	CHIP CAP.	0.01 μF	50V	K	*
C1717-18	NCT03CH-330AY	CHIP CAP.	33 pF	1600V	H	*
C1720-21	NCB21HK-103AY	CHIP CAP.	0.01 μF	50V	K	*
C1741	QFN31HJ-102ZJ1	M CAP.	1000 pF	50V	J	*
C1744	NCT03CH-681AY	CHIP CAP.	680 pF	1600V	H	*
C1772	NCB21HK-103AY	CHIP CAP.	0.01 μF	50V	K	*
△ C1901	QFZ9040-104N	MF CAP.	0.1 μ FAC250V		M	*
△ C1902	QFZ9040-473N	MM CAP.	0.047 μ FAC250V		M	*
△ C1903	QFZ9040-104N	MF CAP	0.1 μ FAC250V		M	*
△ C1904	QCZ9052-102A	C CAP.	1000 p FAC125V			*
△ C1906	QCZ9033-102A	C CAP.	1000 p FAC250V		K	*
△ C1907	QCZ9033-102A	C CAP.	1000 p FAC250V		K	*
△ C1908	QCZ9033-102A	C CAP.	1000 p FAC250V		K	*
△ C1910	QEZ0169-477	E CAP.	470 μF	200V	M	*
C1911	QCZ0116-152AZ	C CAP.	1500 pF	1000V	K	*
C1917	QETC2AM-106Z	E CAP.	10 μF	100V	M	*
C1918	NCB21HK-102AY	CHIP CAP.	1000 pF	50V	K	*
C1921-22	QCZ0132-152AZ	C CAP.	1500 pF	500V	K	*
C1924	QEZ0203-107R	E CAP.	100 μF	160V		
C1929	QETC2CM-106Z	E CAP.	10 μF	160V	M	*
C1938	NCT03CH-471AY	CHIP CAP.	470 pF	1600V	H	*
△ C1999	QCZ9052-222A	C CAP.	2200 p FAC125V			*
TRANSFORMER						
T1131	CELT001-209J3	C.WAVE TRANSF.				*
T1161	CELT003-109J3	S.I.F.TRANSF.				*
T1521	CE42034-002	H.DRIVE TRANSF.				*
△ T1522	CJ28333-00AJ1	H V TRANSF.				*
△ T1901	CETS021-001J3	SWITCH.TRANSF.				*
COIL						
L1001	CELP059-101Z	PEAKING COIL	100 μH			*
L1102	CELP041-R22	PEAKING COIL	0.22 μH			*
L1103	CELP041-R68	PEAKING COIL	0.68 μH			*
L1104	CELP059-680Z	PEAKING COIL	68 μH			*
L1131	CELP059-220Z	PEAKING COIL	22 μH			*
L1161	CELP059-680Z	PEAKING COIL	68 μH			*
L1162	CELP059-220Z	PEAKING COIL	22 μH			*
L1201	CELP059-270Z	PEAKING COIL	27 μH			*
△ L1531	CELL004-001	LINEARITY COIL				*
△ L1532	CELC052-821	CHOKE COIL				*
△ L1591	CELC901-036J6	HEATER CHOKE				*
L1701	CELP059-5R6Z	PEAKING COIL	5.6 μH			*
L1702	CELP058-100Z	PEAKING COIL	10 μH			*
L1771	CELP059-5R6Z	PEAKING COIL	5.6 μH			*
L1921	CELC058-820Z	CHOKE COIL				*
L1922	CELC058-220Z	CHOKE COIL				*
DIODE						
D1001	MTZJ36(A)-T2	ZENER DIODE				*
D1221	MTZJ5.1(B)-T2	ZENER DIODE				*

⚠ Symbol No.	Part No.	Part Name	Description	Local
D I O D E				
D1231-34	1SS133-T2	SI.DIODE		*
D1421	1N4003-T2	SI.DIODE		*
D1422	MTZJ75-T2	ZENER DIODE		*
D1511	MTZJ3.3(A)-T2	ZENER DIODE		*
⚠ D1531	RH3G-C1	SI.DIODE		
⚠ D1532	RU3AM-LFC4	SI.DIODE		
D1533	RGP10J(C1)-T3	SI.DIODE		*
D1541	RH1S-T3	SI.DIODE		
D1542	RGP10J(C1)-T3	SI.DIODE		*
D1544	1SS81-T2	SI.DIODE		*
D1546	1SR124-400A-T2	SI.DIODE		*
D1549	MTZJ9.1(B)-T2	ZENER DIODE		*
⚠ D1551	MTZJ7.5S-T2	ZENER DIODE		*
D1560	1SS133-T2	SI.DIODE		*
D1601-03	1SS133-T2	SI.DIODE		*
D1703-04	1SS133-T2	SI.DIODE		*
D1741-42	1SS133-T2	SI.DIODE		*
D1771-73	1SS133-T2	SI.DIODE		*
⚠ D1901	D3SBA60-C1	BRIDGE DIODE		*
⚠ D1902	RGP10J(C1)-T3	SI.DIODE		*
D1904	RMPG06D-T2	SI.DIODE		
D1905	1SR124-400A-T2	SI.DIODE		*
D1907	1SR124-400A-T2	SI.DIODE		*
D1909	MTZJ15(A)-T2	ZENER DIODE		
D1911	1SS133-T2	SI.DIODE		*
D1921	RU3AM-LFC4	SI.DIODE		
D1922	RU3YX-LFC4	SI.DIODE		
D1923	RGP10J(C1)-T3	SI.DIODE		*
D1924	1SR35-100A-T2	SI.DIODE		*
D1926-28	1SS133-T2	SI.DIODE		*
D1931	1SS133-T2	SI.DIODE		*
D1933	1SS133-T2	SI.DIODE		*
D1934	RGP10J(C1)-T3	SI.DIODE		*
T R A N S I S T O R				
Q1101	2SC5083(L-P)-T	SI.TRANSISTOR		*
Q1131-32	2SC2412K(QR)-X	SI.TRANSISTOR		*
Q1161	2SC2412K(QR)-X	SI.TRANSISTOR		*
Q1203	2SC2412K(QR)-X	SI.TRANSISTOR		*
Q1204-05	2SA1037K(QR)-X	SI.TRANSISTOR		*
Q1231-32	2SC2412K(QR)-X	SI.TRANSISTOR		*
Q1521	2SC4212-C1	SI.TRANSISTOR		
⚠ Q1531	2SD2499-LB	POWER TRANSISTOR	H.OUT	*
Q1541	2SA933S(QR)-T	SI.TRANSISTOR		*
⚠ Q1542	2SC2785(JH)-T	SI.TRANSISTOR		*
Q1601	DTC124EKA-X	DIGI.TRANSISTOR		*
Q1602	2SC2412K(QR)-X	SI.TRANSISTOR		*
Q1603	DTC124EKA-X	DIGI.TRANSISTOR		*
Q1604	2SA1037K(QR)-X	SI.TRANSISTOR		*
Q1701	DTC124EKA-X	DIGI.TRANSISTOR		*
Q1741	2SC2412K(QR)-X	SI.TRANSISTOR		*
Q1742	DTC124EKA-X	DIGI.TRANSISTOR		*
Q1743	2SC2412K(QR)-X	SI.TRANSISTOR		*
Q1921	2SC2412K(QR)-X	SI.TRANSISTOR		*
Q1922	2SD1383K-X	SI.TRANSISTOR		
Q1923	2SA1020(Y)-T	SI.TRANSISTOR		
Q1924	2SC2412K(QR)-X	SI.TRANSISTOR		*
Q1925-28	DTC124EKA-X	DIGI.TRANSISTOR		*
I C				
IC1001	KIA78L05BP-Y	I.C.(MONO-ANA)		*
IC1101	KIA7809PI	I.C.(MONO-ANA)		*
IC1201	TA1242N	I.C.(MONO-ANA)		
⚠ IC1421	LA7832	I C		
⚠ IC1601	LA4485	I.C.(MONO-ANA)		
IC1701	MN1874876J7R3	I C		

⚠ Symbol No.	Part No.	Part Name	Description			Local
I C						
IC1702	AT24C04-27750U	I.C.(EP-ROM)	(SERVICE)			
IC1703	MN1280-Q	I.C.(DIGI-MOS)				*
IC1771	KIA78L05BP-Y	I.C.(MONO-ANA)				*
⚠ IC1901	STR-S5708	I.C.(HYBRID)				
O T H E R S						
CF1001	FTP47.25MF	CERAMIC FILTER				*
CF1131	CE41505-001	CERAMIC FILTER				
CF1161	SFSH4.5MCB	CERAMIC FILTER				*
CF1501	CSB503F30-T2	CER.RESONATOR				*
CF1701	FCR12.0M2S	CER.RESONATOR				*
⚠ F1901	QMF0007-5R0J1	FUSE	5.0A			*
K1421	CE42050-001Z	CORE				
K1902	CE41433-001Z	BEADS CORE				
K1921	CE41433-001Z	BEADS CORE				
K1922	CE42050-001Z	CORE				
⚠ LF1901	CELF008-001J5	LINE FILTER				*
⚠ LF1902	CE42335-001J1	LINE FILTER				*
⚠ PC1901	TLP621(GB)	I.C.(PH.COUPLER)				*
⚠ PC1902	TLP621(GB)	I.C.(PH.COUPLER)				*
⚠ RY1901	CESK028-001	RELAY				*
⚠ RY1921	CESK028-001	RELAY				*
S1421	QSL6A13-C01	LEVER SWITCH	V.CENTER SW			*
SF1101	CE42604-201	SAW FILTER				
⚠ TH1901	CEKP007-002	P.THERMISTOR				
⚠ TU1001	CEEK280-A01	TUNER				*
⚠ VA1901	ERZV10V361CS	VARISTOR				*
X1301	CE41651-001Z	CRYSTAL				*
⚠ Y1009	ICP-N75-Y	I.C.PROTECT				*

CRT SOCKET PW BOARD ASS'Y (SGK-3012A-M2)

⚠ Symbol No.	Part No.	Part Name	Description			Local
R E S I S T O R						
R3360-62	QRZ0111-152	C R	1.5kΩ	1/2W		*
R3363-65	QRG029J-103	OM R	10kΩ	2W	J	*
C A P A C I T O R						
C3354-55	NCS21HJ-331AY	CER.CAP.-M	330 p F	50V	J	*
C3356	NCS21HJ-391AY	CER.CAP.-M	330 p F	50V	J	*
⚠ C3382	QCZ0121-102A	C CAP.	1000 p F	3kV	Z	*
C O I L						
L3381	CELP055-101Z	PEAKING COIL	100 μ H			*
T R A N S I S T O R						
Q3351-53	2SC4544-C1	SI.TRANSISTOR				*
O T H E R S						
⚠ SK3351	CE42535-001J1	C.R.T.SOCKET				*

FRONT CONTROL PW BOARD ASS'Y (SGK-4011A-M2)

⚠ Symbol No.	Part No.	Part Name	Description	Local
D I O D E				
D4701	GL2PR6	L.E.D.(RED)		*
T R A N S I S T O R				
Q4701-02	DTA124EKA-X	DIGI.TRANSISTOR		*
I C				
IC4841	HC-337MN	IFR DETECT UNIT		*
O T H E R S				
	CM46978-A01-H	L.E.D.HOLDER		*
S4702	QSP1A11-C19Z	PUSH SWITCH	MENU	*
S4703	QSP1A11-C19Z	PUSH SWITCH	CH -	*
S4704	QSP1A11-C19Z	PUSH SWITCH	CH +	*
S4705	QSP1A11-C19Z	PUSH SWITCH	VOL -	*
S4706	QSP1A11-C19Z	PUSH SWITCH	VOL +	*
S4707	QSP1A11-C19Z	PUSH SWITCH	POWER	*

AV SELECTOR PW BOARD ASS'Y (SGK-8012A-M2)

⚠ Symbol No.	Part No.	Part Name	Description			Local
V A R I A B L E R E S I S T O R						
R8123	QVPA603-473AZ	V R (NOISE VR)	47k Ω B			
R E S I S T O R						
R8005	QRD149J-5R6S	C R	5.6 Ω	1/4W	J	*
R8109	NRVA02D-2200NY	CHIP MF R	220 Ω	1/10W	F	
R8607	NRVA02D-1502NY	MF R	15k Ω	1/10W	F	*
R8609	NRVA02D-1501NY	MF R	1.5k Ω	1/10W	F	*
C A P A C I T O R						
C8005	NCB21HK-103AY	CHIP CAP.	0.01μF	50V	K	*
C8101-03	NCB21HK-103AY	CHIP CAP.	0.01μF	50V	K	*
C8104	NCB21HK-222AY	CHIP CAP.	2200pF	50V	K	*
C8106	NCB21HK-222AY	CHIP CAP.	2200pF	50V	K	*
C8107	NCB21HK-103AY	CHIP CAP.	0.01μF	50V	K	*
C8108	NCS21HJ-101AY	CHIP CAP.	100pF	50V	J	
C8109-10	QFV71HJ-224MZ	TF CAP.	0.22μF	50V	J	*
C8112	NCB21HK-222AY	CHIP CAP.	2200pF	50V	K	*
C8115	NCB21HK-103AY	CHIP CAP.	0.01μF	50V	K	*
C8118	QFV71HJ-474MZ	TF CAP.	0.47μF	50V	J	*
C8161	QFLC1HK-104MZ	M CAP.	0.1μF	50V	K	*
C8205	NCT03CH-330AY	CHIP CAP.	33pF	1600V	H	*
C8302	QFLC1HK-103MZ	M CAP.	0.01μF	50V	K	*
C8303	NCT03CH-680AY	CHIP CAP.	68pF	1600V	H	*
C8304	NCT03CH-271AY	CHIP CAP.	270pF	1600V	H	*
C8305	NCB21HK-103AY	CHIP CAP.	0.01μF	50V	K	*
C8316	NCB21HK-103AY	CHIP CAP.	0.01μF	50V	K	*
C8317	NCT03CH-680AY	CHIP CAP.	68pF	1600V	H	*
C8602	QFLC1HK-103MZ	M CAP.	0.01μF	50V	K	*
C8604	QFV71HJ-104MZ	TF CAP.	0.1μF	50V	J	*
C8605	QEN61HM-475Z	BP E CAP.	4.7μF	50V	M	*
C8606	QEN61HM-105Z	BP E CAP.	1μF	50V	M	*
C8608	QFLC1HK-473MZ	M CAP.	0.047μF	50V	K	*
C8610-11	QFV71HJ-104MZ	TF CAP.	0.1μF	50V	J	*
C8613	QEE61CK-335BZ	TAN.CAP.	3.3μF	16V	K	

⚠ Symbol No.	Part No.	Part Name	Description			Local
C A P A C I T O R						
C8614	QEE61CK-106BZ	TAN.CAP.	10 μF	16V	K	
C8619	QFLC1HK-273MZ	M CAP.	0.027 μF	50V	K	*
C8621	QFN31HK-222ZJ1	M CAP.	2200 pF	50V	K	*
C8622	QFV71HJ-104MZ	TF CAP.	0.1 μF	50V	J	*
C8624	QFN31HK-222ZJ1	M CAP.	2200 pF	50V	K	*
C8625	QFV71HJ-104MZ	TF CAP.	0.1 μF	50V	J	*
C8661-62	QEN61HM-105Z	BP E CAP.	1 μF	50V	M	*
C8829	QEN61HM-106Z	BP E CAP.	10 μF	50V	M	*
C8832	QFLC1HK-103MZ	M CAP.	0.01 μF	50V	K	*
C8841	QETC1CM-476Z	E CAP.	47 μF	16V	M	*
C8842	QFLC1HK-103MZ	M CAP.	0.01 μF	50V	K	*
C8846	QFLC1HK-103MZ	M CAP.	0.01 μF	50V	K	*
C O I L						
L8003	CELP059-150Z	PEAKING COIL	15 μH			*
L8101	CELP041-R22	PEAKING COIL	0.22 μH			*
L8103	CE42452-003	COIL				*
L8104	CELP055-220Z	PEAKING COIL	22 μH			*
L8106	CELP059-5R6Z	PEAKING COIL	5.6 μH			*
L8202	CELP059-220Z	PEAKING COIL	22 μH			*
L8301	CELP059-150Z	PEAKING COIL	15 μH			*
L8801-02	CELP059-5R6Z	PEAKING COIL	5.6 μH			*
D I O D E						
D8311-13	1SS133-T2	SI.DIODE				*
D8693-94	MTZJ9.1(C)-T2	ZENER DIODE				*
D8701-03	MTZJ5.6(B)-T2	ZENER DIODE				*
D8811-22	MTZJ9.1(C)-T2	ZENER DIODE				*
T R A N S I S T O R						
Q8101	2SC5083(L-P)-T	SI.TRANSISTOR				*
Q8102	2SA1037K(QR)-X	SI.TRANSISTOR				*
Q8202	2SC2412K(QR)-X	SI.TRANSISTOR				*
Q8203	2SA1037K(QR)-X	SI.TRANSISTOR				*
Q8204	2SC2412K(QR)-X	SI.TRANSISTOR				*
Q8301-03	2SC2412K(QR)-X	SI.TRANSISTOR				*
Q8305	2SC2412K(QR)-X	SI.TRANSISTOR				*
Q8671-72	DTC124EKA-X	DIGI.TRANSISTOR				
Q8683-86	2SC2412K(QR)-X	SI.TRANSISTOR				*
Q8801-02	2SC2412K(QR)-X	SI.TRANSISTOR				*
Q8803	2SA1037K(QR)-X	SI.TRANSISTOR				*
Q8804-07	2SC2412K(QR)-X	SI.TRANSISTOR				*
Q8851-53	DTC124EKA-X	DIGI.TRANSISTOR				*
I C						
IC8001	KIA7805PI	I.C.(MONO-ANA)				*
IC8101	LA7583	I.C.(MONO-ANA)				
IC8601	UPC1851CU-02	I.C.(MONO-ANA)				
IC8661	BA15218N	I.C.(MONO-ANA)				*
IC8671	TC4066BP	I.C.(DIGI-MOS)				*
IC8801-02	BA7644AN	OP AMP IC				
IC8803	TC4066BP	I.C.(DIGI-MOS)				*
O T H E R S						
CF8101	FTP47.25MF	CERAMIC FILTER				*
CF8102	FCR5.71M2SF3	CER.RESONATOR				*
CF8103	CE41505-001	CERAMIC FILTER				
CM8201	CE42599-001	COMB FILTER MOD				*
CN8004	CHA401N-25P-J	HQF CONNECTOR				*
DL8201	CE42464-001	BPF&DL MODULE				*
J8801	QMCC004-C01	MINI DIN JACK				
SF8101	CE42589-201	SAW FILTER				
⚠ TU8001	CEEK280-A01	TUNER				*

AV JACK PW BOARD ASS'Y (SGK0J002A-M2)

⚠ Symbol No.	Part No.	Part Name	Description	Local
OTHERS				
CN0004	CHA401N-25R-J	HQF CONNECTOR		*
J0802-03	CEMN073-001	PIN JACK		*
J0804	CEMN090-003	PIN JACK		*
J0805-06	AX49607-020	MINI JACK		*

PIP PW BOARD ASS'Y (SGK0P002A-M2)

⚠ Symbol No.	Part No.	Part Name	Description				Local
RESISTOR							
R0161	QRG019J-390S	OM R	39 Ω	1W	J		*
R0401	QRD149J-330S	C R	33 Ω	1/4W	J		*
CAPACITOR							
C0101	QEN61CM-106Z	BP E CAP.	10 μF	16V	M		*
C0102	NCT03CH-150AY	CHIP CAP.	15 pF	1600V	H		*
C0103	NCT03CH-101AY	CHIP CAP.	100 pF	1600V	H		*
C0104	NCB21HK-103AY	CHIP CAP.	0.01 μF	50V	K		*
C0110	NCT03CH-561AY	CHIP CAP.	560 pF	1600V	H		*
C0122	NCB21HK-103AY	CHIP CAP.	0.01 μF	50V	K		*
C0123	NCB21HK-152AY	CHIP CAP.	1500 pF	50V	K		*
C0125	NCF21HZ-103AY	CHIP C CAP.	0.01 μF	50V	Z		*
C0126	QFV71HJ-104MZ	TF CAP.	0.1 μF	50V	J		*
C0127	NCT03CH-220AY	CHIP CAP.	22 pF	1600V	H		*
C0142	NCT03CH-150AY	CHIP CAP.	15 pF	1600V	H		*
C0143	NCF21HZ-103AY	CHIP C CAP.	0.01 μF	50V	Z		*
C0145	NCB21HK-103AY	CHIP CAP.	0.01 μF	50V	K		*
C0149	NCT03CH-101AY	CHIP CAP.	100 pF	1600V	H		*
C0150	NCT03CH-470AY	CHIP CAP.	47 pF	1600V	H		*
C0162	NCF21HZ-103AY	CHIP C CAP.	0.01 μF	50V	Z		*
C0164	NCF21HZ-103AY	CHIP C CAP.	0.01 μF	50V	Z		*
C0166	NCF21HZ-103AY	CHIP C CAP.	0.01 μF	50V	Z		*
C0171-89	NCF21HZ-103AY	CHIP C CAP.	0.01 μF	50V	Z		*
C0202	NCF21HZ-103AY	CHIP C CAP.	0.01 μF	50V	Z		*
C0204-05	NCF21HZ-103AY	CHIP C CAP.	0.01 μF	50V	Z		*
C0210-11	QEN61HM-475Z	BP E CAP.	4.7 μF	50V	M		*
C0213	NCB21HK-103AY	CHIP CAP.	0.01 μF	50V	K		*
C0215	NCB21HK-103AY	CHIP CAP.	0.01 μF	50V	K		*
C0216	NCT03CH-102AY	CHIP CAP.	1000 pF	1600V	H		*
C0222-25	NCT03CH-470AY	CHIP CAP.	47 pF	1600V	H		*
C0227	NCF21HZ-103AY	CHIP C CAP.	0.01 μF	50V	Z		*
C0241-51	NCT03CH-101AY	CHIP CAP.	100 pF	1600V	H		*
C0252-60	NCT03CH-471AY	CHIP CAP.	470 pF	1600V	H		*
C0261-62	NCT03CH-681AY	CHIP CAP.	680 pF	1600V	H		*
C0263	NCT03CH-101AY	CHIP CAP.	100 pF	1600V	H		*
C0270-78	NCF21HZ-103AY	CHIP C CAP.	0.01 μF	50V	Z		*
C0304	QEN61HM-475Z	BP E CAP.	4.7 μF	50V	M		*
C0310	NCF21HZ-103AY	CHIP C CAP.	0.01 μF	50V	Z		*
C0331	NCF21HZ-103AY	CHIP C CAP.	0.01 μF	50V	Z		*
COIL							
L0101	CELP059-100Z	PEAKING COIL	10 μH				*
L0103	CELP059-150Z	PEAKING COIL	15 μH				*
L0106	CELP059-820Z	PEAKING COIL	82 μH				*
L0107	CELP059-150Z	PEAKING COIL	15 μH				*

△ Symbol No.	Part No.	Part Name	Description	Local
D I O D E				
D0201	1SS133-T2	SI.DIODE		*
D0403	1SS133-T2	SI.DIODE		*
T R A N S I S T O R				
Q0101-05	2SC2412K(QR)-X	SI.TRANSISTOR		*
Q0106	2SA1037K(QR)-X	SI.TRANSISTOR		*
Q0201	2SA1037K(QR)-X	SI.TRANSISTOR		*
Q0301-09	2SC2412K(QR)-X	SI.TRANSISTOR		*
Q0402	2SA1037K(QR)-X	SI.TRANSISTOR		*
Q0403-09	2SC2412K(QR)-X	SI.TRANSISTOR		*
I C				
IC0101	LA7403	I C		
IC0102	KIA7809PI	I.C.(MONO-ANA)		*
IC0103	KIA7805PI	I.C.(MONO-ANA)		*
IC0201	LC74411	I C		
IC0202	MN1381-Q-Y	I.C.(MONO-ANA)		
IC0301	BA7655AF-X	I.C.(MONO-ANA)		*
IC0401	AN5860	I.C.(MONO-ANA)		
O T H E R S				
X0101	CSB503F30-T2	CER.RESONATOR		*
X0102	CE41651-001Z	CRYSTAL		*

REMOTE CONTROL UNIT PARTS LIST (RM-C742-1C)

△ Ref.No.	Part No.	Part Name	Description	Local
	2AA015250	BATTERY COVER		*

PACKING
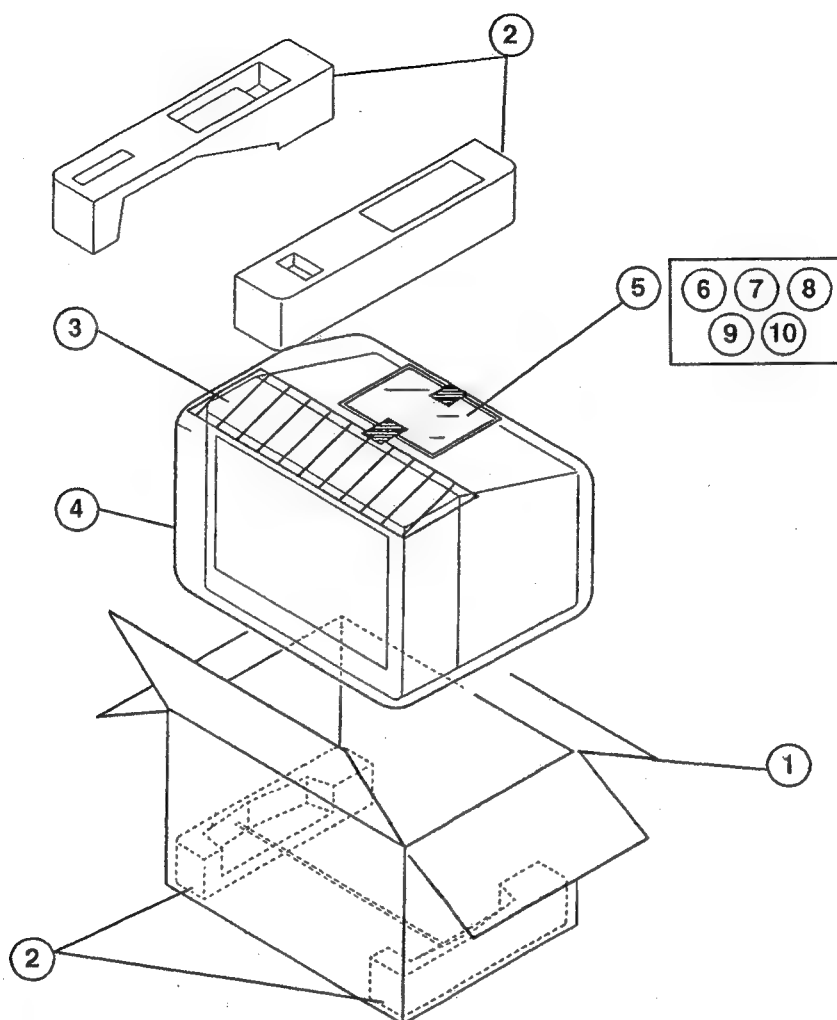
PACKING PARTS LIST

⚠ Ref.No.	Part No.	Part Name	Description	Local
[America model]				
1	CP11499-A02-A	PACKING CASE		*
2	CP11536-A0D-A	CUSHION ASSY	4pcs in 1set	*
3	CP30055-001-A	TOP COVER		*
4	CP30056-002-A	POLY BAG		*
5	QPGA025-03505A	POLY BAG		*
6	RM-C742-1C	REMOCON UNIT		*
⚠ 7	CQ40198-001-A	INST BOOK	(ENGLISH)	*
8	BT-51006-1Q	REGI.CARD		*
[Canada model]				
1	CP11499-A02-A	PACKING CASE		*
2	CP11536-A0D-A	CUSHION ASSY	4pcs in 1set	*
3	CP30055-001-A	TOP COVER		*
4	CP30056-002-A	POLY BAG		*
5	QPGA025-03505A	POLY BAG		*
6	RM-C742-1C	REMOCON UNIT		*
⚠ 7	CQ40198-001-A	INST BOOK	(ENGLISH)	*
⚠ 7	CQ40199-001-A	INST BOOK	(FRENCH)	*
9	BT-52002-1Q	WARRANTY CARD		*
10	BT-20071B-Q	SVC CENTER LIST		*

OPERATING INSTRUCTIONS (AV-35750 · AV-32750 · AV-32730 AV-32720 · AV-27750 · AV-27730)

JVC

COLOR TELEVISION USER'S GUIDE

For models:

AV-35750 · AV-32750 · AV-32730
AV-32720 · AV-27750 · AV-27730

In the spaces below, enter the model and serial number
for your television (located on the rear of the television cabinet).
Staple your sales receipt or invoice to the inside cover of this guide.
Keep this user's guide in a convenient place for future reference.
Keep the carton and original packaging for future use.

Model Number _____

Serial Number _____

CQ40198-001-A
0596-TN-JII-JIM

JVC

JVC COMPANY OF AMERICA
A Division of U.S. JVC CORP.
41 Slater Drive
Elmwood Park, New Jersey 07407

JVC CANADA, INC.
21 Finchdene Square
Scarborough, Ontario
Canada M1X 1A7

IMPORTANT SAFETY PRECAUTIONS

CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

CAUTION: To reduce the risk of electric shock.
DO NOT REMOVE COVER (OR BACK).
No user serviceable parts inside.
Refer servicing to qualified service personnel.

The lightning flash with arrowhead symbol, within an equilateral triangle is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

WARNING: TO PREVENT FIRE OR SHOCK HAZARDS, DO NOT EXPOSE THIS TV SET TO RAIN OR MOISTURE.

CAUTION: TO INSURE PERSONAL SAFETY, OBSERVE THE FOLLOWING RULES REGARDING THE USE OF THIS UNIT.

1. Operate only from the power source specified on the unit.
2. Avoid damaging the AC plug and power cord.
3. Avoid improper installation and never position the unit where good ventilation is unattainable.
4. Do not allow objects or liquid into the cabinet openings.
5. In the event of trouble, unplug the unit and call a service technician. Do not attempt to repair it yourself or remove the rear cover.

Changes or modifications not approved by JVC could void the warranty.

* When you don't use this TV set for a long period of time, be sure to disconnect both the power plug from the AC outlet and antenna for your safety.

* To prevent electric shock do not use this polarized plug with an extension cord, receptacle or other outlet unless the blades can be fully inserted to prevent blade exposure.

IMPORTANT SAFEGUARDS

CAUTION:

Please read and retain for your safety.

Electrical energy can perform many useful functions. This TV set has been engineered and manufactured to assure your personal safety. But *improper use can result in potential electrical shock or fire hazards.* In order not to defeat the safeguards incorporated in this TV set, observe the following basic rules for its installation, use and servicing.
And also follow all warnings and instructions marked on your TV set.

INSTALLATION

1 Your TV set is equipped with a polarized AC line plug (one blade of the plug is wider than the other).

(POLARIZED-TYPE)

This safety feature allows the plug to fit into the power outlet only one way. Should you be unable to insert the plug fully into the outlet, try reversing the plug. Should it still fail to fit, contact your electrician.

2 Operate the TV set only from a power source as indicated on the TV set or refer to the operating instructions for this information. If you are not sure of the type of power supply to your home, consult your TV set dealer or local power company. For battery operation, refer to the operating instructions.

3 Overloaded AC outlets and extension cords are dangerous, and so are frayed power cords and broken plugs. They may result in a shock or fire hazard. Call your service technician for replacement.

4 Do not allow anything to rest on or roll over the power cord, and do not place the TV set where power cord is subject to traffic or abuse. This may result in a shock or fire hazard.

5 Do not use this TV set near water — for example, near a bathtub, washbowl, kitchen sink, or laundry tub, in a wet basement, or near swimming pool, etc.

6 If an outside antenna is connected to the TV set, be sure the antenna system is grounded so as to provide some protection against voltage surges and built-up static charges. Section 810 of the National Electrical Code provides information with respect to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna discharge unit, connection requirements for the grounding electrode.

7 An outside antenna system should not be located in the vicinity of overhead power lines or other electric light or power circuits, or where it can fall into such power lines or circuits. When installing an outside antenna system, extreme care should be taken to keep from touching such power lines or circuits as contact with them might be fatal.

**EXAMPLE OF ANTENNA GROUNDING
AS PER NATIONAL ELECTRICAL CODE**

ANTENNA
LEAD IN
WIRE

ANTENNA
DISCHARGE UNIT
(NEC SECTION 810-20)

GROUNDING CONDUCTORS
(NEC SECTION 810-21)

GROUND CLAMPS

GROUND
CLAMP

POWER SERVICE GROUNDING
ELECTRODE SYSTEM
(NEC ARTICLE 250, PART H)

ELECTRIC
SERVICE
EQUIPMENT

NEC = NATIONAL ELECTRIC CODE
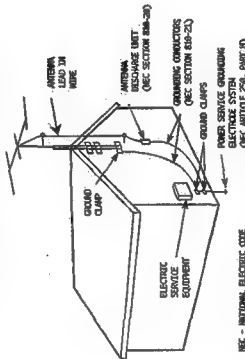
8 TV sets are provided with ventilation openings in the cabinet to allow heat generated during operation to be released.
Therefore:
— Never block the bottom ventilation slots of a portable TV set by placing it on a bed, sofa, rug, etc.
— Never place a TV set in a "built-in" enclosure unless proper ventilation is provided.
— Never cover the openings with a cloth or other material.
— Never place the TV set near or over a radiator or heat register.

9 To avoid personal injury:
— Do not place a TV set on a sloping shelf unless properly secured.
— Use only a cart or stand recommended by the TV set manufacturer.
— Do not try to roll a cart with small casters across thresholds or deep pile carpets.
— Wall or shelf mounting should follow the manufacturer's instructions, and should use a mounting kit approved by the manufacturer.

USE

10 Caution children about dropping or pushing objects into the TV set through cabinet openings. Some internal parts carry hazardous voltages and contact can result in a fire or electrical shock.

11 Unplug the TV set from the wall outlet before cleaning. Do not use liquid or an aerosol cleaner.

12 Never add accessories to a TV set that has not been designed for this purpose. Such additions may result in a hazard.

13 For added protection of the TV set during a lightning storm or when the TV set is to be left unattended for an extended period of time, unplug it from the wall outlet and disconnect the antenna. This will prevent damage to product due to lightning storms or power line surges.

14 A TV set and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the TV set and cart combination to overturn.

SERVICE

15 Unplug this TV set from the wall outlet and refer servicing to qualified service personnel under the following conditions:
A. When the power cord or plug is damaged or frayed.
B. If liquid has been spilled into the TV set.
C. If the TV set has been exposed to rain or water.
D. If the TV set does not operate normally by following the operating instructions. Adjust only those controls that are covered in the operating instructions as improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the TV set to normal operation.
E. If the TV set has been dropped or damaged in any way.
F. When the TV set exhibits a distinct change in performance — this indicates a need for service.

16 Do not attempt to service this TV set yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.

17 When replacement parts are required, have the service technician verify in writing that the replacement parts he uses have the same safety characteristics as the original parts. Use of manufacturer's specified replacement parts can prevent fire, shock, or other hazards.

18 Upon completion of any service or repairs to this TV set, please ask the service technician to perform the safety check described in the manufacturer's service literature.

19 When a TV set reaches the end of its useful life, improper disposal could result in a picture tube implosion. Ask a qualified service technician to dispose of the TV set.

20 Note to CATV system installer:
This reminder is provided to call the CATV system installer's attention to Article 820-40 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

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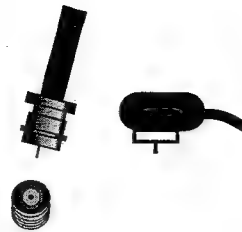# CONNECTIONS CHECKLIST

READ ME BEFORE CONNECTIONS

A/V input plug

RF Connectors

1) **Refer to the connection instructions in the user's guide for each component you plan to connect** (they will provide more information about their products).

2) **Most A/V input jacks and plugs are color coded:**
 • Yellow plugs are Video connections
 • Red plugs are for Right Audio connections
 • White plugs are Left Audio (Mono) connections

3) **Perform one hookup at a time.**
If you have many accessories to connect, make sure each connection is correct by checking to see that it works properly before attempting the next connection.

4) **Unplug the power cord between each connection.**

5) **Each jack on the back of the TV is labeled.** If you read these instructions and still do not fully understand the connections process, seek assistance.

FRONT AND REAR PANEL DIAGRAMS

NOTE:
There is a common front panel for all models in this user's guide.
* Placement of jacks may vary slightly depending on model number.
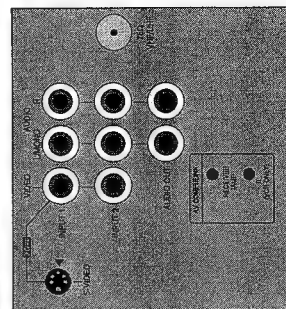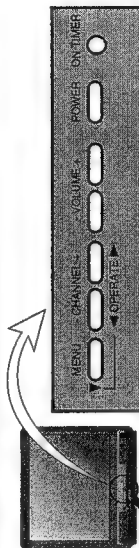
REAR PANEL DIAGRAM
AV-35750 • AV-32750 • AV-27750
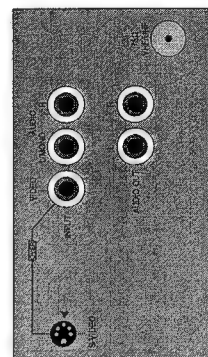
REAR PANEL DIAGRAM
AV-32730 • AV-32720 • AV-27730
(The AV-27730 does not have an S-Video Input)

6 C O N N E C T I O N S

CABLE CONNECTIONS

There are two basic types of antenna or cable hookups. If you have an antenna, or have a cable TV system that does not require you to use a cable box to tune channels, use diagram #1. If you have a cable system that requires you to use a cable box to access any or all channels, use diagram #2.

#1

WALL
CABLE or ANTENNA
OUT

TWO-WAY
SPLITTER

VCR

TV

75Ω
VHF/UHF
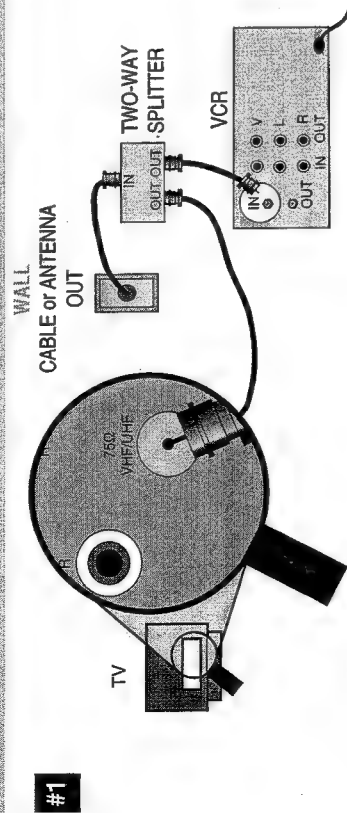
1) Cable or antenna wire *out* from wall *in* to splitter RF input.
2) *Out* from Splitter output *in* to VCR RF input.
3) *Out* from Splitter output *in* to TV VHF/UHF.

#2

WALL
CABLE
OUT

CABLE
BOX

VCR

TV

75Ω
VHF/UHF
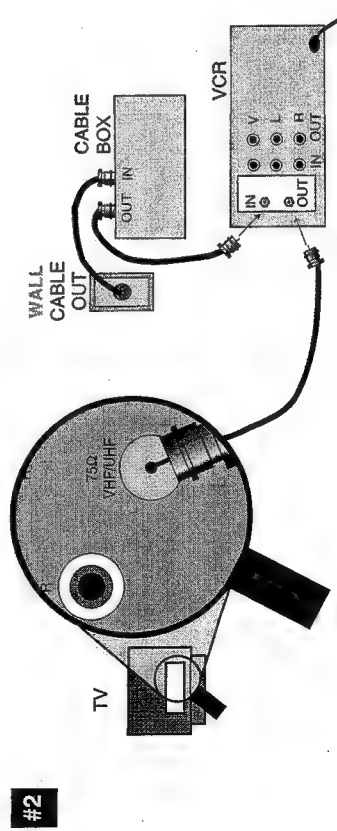
1) Cable Wire *out* from wall *in* to cable box input.
2) *Out* from cable box *in* to VCR RF input.
3) *Out* from VCR RF output *in* to TV VHF/UHF input.

❑ *Refer to the VCR and/or cable box instructions regarding their unit's RF output.*

7

AUDIO/VIDEO CONNECTIONS — STEREO & PIP

To get stereo sound from a hi-fi stereo VCR, you must connect it to the TV using Audio/Video cables.

VCR

TV
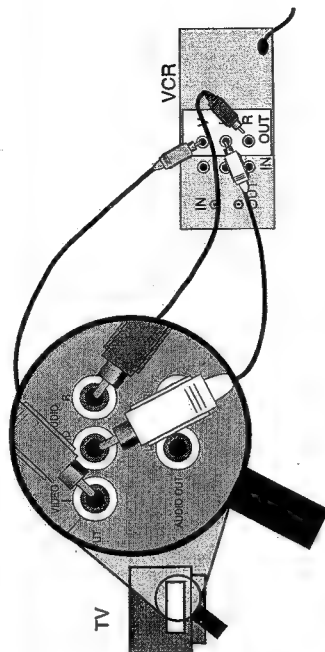
1) Yellow video cable *out* from VCR *in* to TV Video input jack.
2) White audio cable *out* from VCR Left *in* to TV Left Audio input jack.
3) Red audio cable *out* from VCR Right *in* to TV Right Audio input jack.
❑ If your VCR is mono it has only one audio out jack, connect it to TV L/Mono input.
❑ *Refer to your VCR's instructions.*

CONNECTING TO A CAMCORDER

CAMCORDER

TV
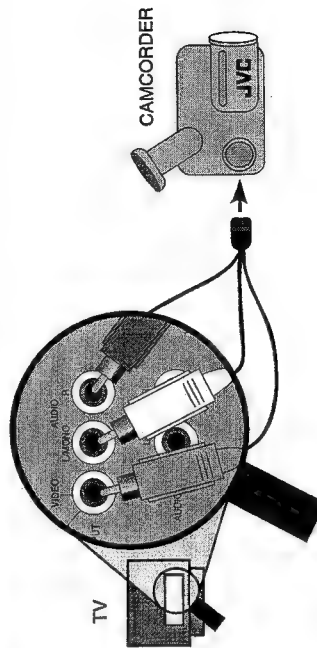
Connect a camcorder to your TV.

1) White audio cable *out* from camcorder *in* to TV Left Audio input jack.
2) Yellow video cable *out* from camcorder *in* to TV Video input jack.
3) If you have a stereo model camcorder, Red audio cable *out* from camcorder *in* to TV right audio input jack.
❑ *Refer to the camcorder's instructions.*

CONNECTING TO JVC AV COMPU LINK CAPABLE COMPONENTS

AV Compu Link makes playing video tape totally automatic. Simply insert a pre-recorded tape* into the VCR, and the VCR automatically turns on and starts playing. At the same time, the VCR sends an AV Compu Link signal to the television telling it to turn on and switch to the correct video input.

JVC
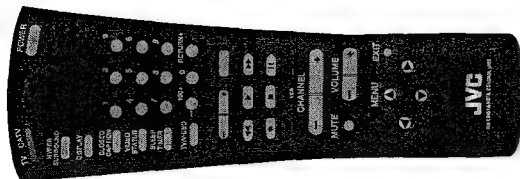AV Compu Link
Capable
VCR

AV
COMPU
LINK
SWAP

IN   OUT   R   OUT

To AV Compu Link

TV

NOTES:

1) The AV Compu Link cable has a Male 3.5 mm (mono) mini plug on each end.

2) If your JVC brand VCR has A Code/B Code Remote Control Switching (see VCR instructions), using VCR A Code will switch the TV to Video Input 1. Using B Code will switch the TV to Video Input 2.

3) To connect a JVC HiFi receiver or amplifier for a completely automated home theater, see the HiFi receiver's instructions for detailed hookup diagrams.

* In order for AV Compu Link to work, the recording tabs must be removed from the VHS tape.

CONNECTING S-VHS VIDEO ACCESSORIES (VCR OR CAMCORDER)

S-VHS
VCR.

S-VIDEO
OUT

IN   OUT

TV
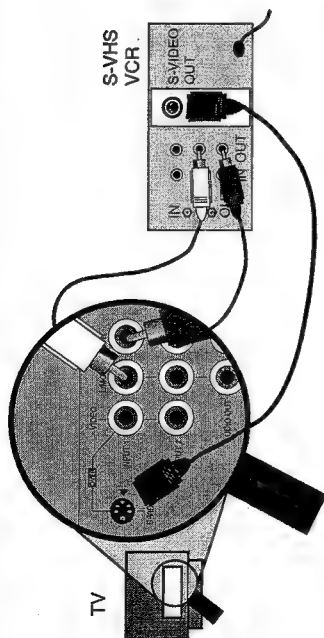
Keeping the audio connections the same as for a non-S-VHS VCR or camcorder (page 7), use the special S-VHS cable that came with the VCR or Camcorder. Illustration is of S-VHS VCR hookup.

1) S-VHS Plug out from VCR in to TV's S-Video Input.

☐ Refer to your VCR or camcorder instructions.

CONNECTING TO EXTERNAL AMPLIFIER

LEFT FRONT
SPEAKER

RIGHT FRONT
SPEAKER

AMPLIFIER

TV
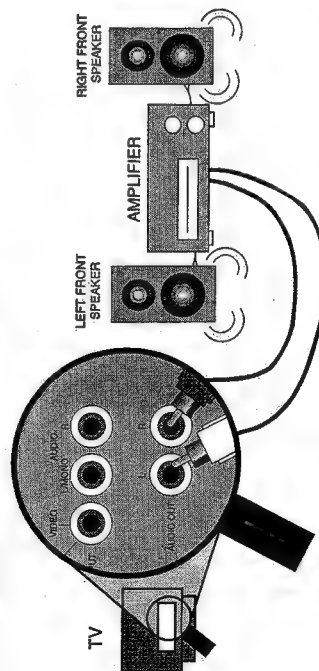
Set the TV Speaker to OFF (page 20), switch the audio output to VARI (page 20), and adjust the sound with the TV remote's VOLUME -/+ button (page 11.)

1) White audio cable out from TV Left Audio output jack in to Amplifier [Left] input.

2) Red audio cable out from TV Right Audio output jack in to Amplifier [Right] input.

☐ Refer to the amplifier's instructions.

REMOTE CONTROLS

RM-C743
AV-32720
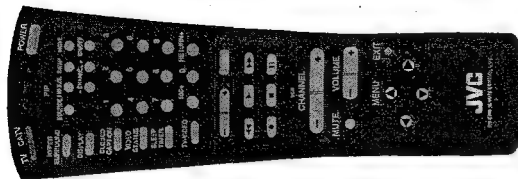
RM-C742
AV-35750
AV-32750
AV-27750
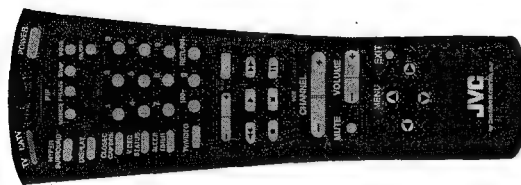
RM-C741
AV-32730
AV-27730

Changing and Inserting Batteries.

Use only size AA batteries.

1 Push down on the remote's battery cover and slide towards the bottom to remove it.

2 Insert the two supplied AA batteries, carefully noting the + and – markings on the batteries and remote control. To **avoid a short circuit, insert "–" end first.**

3 Slide the cover back into place until it clicks into position.
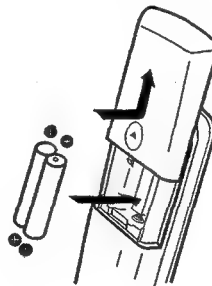
NOTES:

☐ *If it takes more than a minute to change the batteries, you may have to reprogram the CATV and/or VCR codes (see page 12-13.)*

☐ *If the remote control acts erratically, replace the batteries. Battery life is usually six months to one year.*

☐ *We recommend the use of alkaline batteries for longer battery life.*

POWER

☐ Make sure that the TV/CATV switch is set to TV. Switch to CATV only if you plan to operate a cable box.

☐ Press the POWER button on the remote control or the TV front panel. The On-Timer lamp will glow red.

☐ To turn the power off, press the POWER button again. The On-Timer lamp will go out.

☐ The On-Timer lamp remains on while the On/Off Timer Function is active (see page 19).

ADJUSTING VOLUME

1 Press the VOLUME button on the front panel or remote control. The volume slidebar will appear.

VOLUME 13

2 Press the MUTE button to instantly turn the volume off. To restore the volume to the previous level, press the MUTE button again.

CHANGING CHANNELS

1 **10 Key Direct Access.**

- Press the numbers on the remote's 10 key pad.
- For single-digit channel numbers press 0, then the number.
- For channels above 100, press the 100+ button plus the 2-digit number.

2 **CHANNEL -/+ button.**

Press the CHANNEL -/+ button, it will scan the channels in order. When you scan channels, any station IDs that you have set scroll across the bottom of the screen.

Note: After you operate the Auto Tuner Setup, all of the blank, or empty, channels will be removed from scanning so that there is no noise or channel snow when you scan, only active channels.

3 **Return.**

Press and release the RETURN+ button to return to the previous channel. First, select a channel (game #1). Then, select another channel (game 2) with the 10 key pad and push the RETURN+ button to flip directly back and forth.

4 **Return+**

Press and hold down the RETURN+ button for three seconds. The message, "RETURN CHANNEL PROGRAMMED !" will appear and you can scan as you wish. Press RETURN+ again and you will go back to the Return+ channel.

To cancel a Return+ channel, press and hold down the RETURN+ button for another three seconds and the message, "RETURN CHANNEL CANCELED !" appears.

☐ Pressing a number key or turning the set off will also cancel a Return+ channel.

SETTING THE CATV & VCR CODES

CABLE BOX SETUP FOR REMOTE CONTROLS

1) Determine the correct code from the "CATV Codes" chart below.
2) Slide the 2-Way Mode Selector Switch to CATV.
3) Press and hold down the DISPLAY button.
4) Enter the 2-digit code with the 10 key pad while continuing to hold down DISPLAY button.
5) Release the DISPLAY button.
6) Confirm the operation of the cable box.

☐ Many cable box brands have more than one code. If the first code does not work, try the other codes listed.

CATV Codes

Manufacturer	Code	Manufacturer	Code	Manufacturer	Code
Archer	00 17 18	Matsushita	10 11	SL Marx	17 18
Cabletenna	00 18	Movietime	15 17 18	Samsung	10 11 15 17 23
Cableview	17 18	NSC	15	Scientific Atlanta	07 08 21 22
Century	17 18	Oak	19	Signal	12 15 17 23
Citizen	17 18	Panasonic	10 11	Sprucer	10 11
Curtis	07 08 21 22	Philips	12 13	Standard Components	17 18
Diamond	00 18	Pioneer	04 05 23	Stargate	15 17 18 23
Eagle	12 15	Pulser	17 18	Teleview	15 17 23
Eastern	14	Quest	00 01 02 03 24 25	Tocom	00 17 25
GC Electronics	17 18	RCA	10 11	Unika	00 18
Gemini	03	Realistic	18	Universal	17 18
General Instrument	00 01 02 03 24 25	Recoton	17 18	Videoway	06 13 20
Gerrard	17 18	Regal	16	Viewstar	12 15
Hamlin	09 14 16	Regency	14	Zenith	06 13 20
Jerrold	00 01 02 03 24 25	Rembrandt	17 18		

VCR SETUP FOR REMOTE CONTROLS

The remote is pre-programmed with the VCR codes for power on and power off, play, stop, fast-forward, rewind, and channel up and down.

1) Determine the correct code from the "VCR Codes" chart (page 11).
2) Slide the 2-Way Mode Selector Switch to TV.
3) Press and hold down the DISPLAY button.
4) Enter the 2-digit code with the 10 key pad while continuing to hold down DISPLAY button.
5) Release the DISPLAY button.
6) Confirm the operation of the VCR.

☐ Many VCR brands have more than one code. If the first code does not work, try the other codes listed.

☐ IF your VCR does not respond to any of the codes listed for the manufacturer, use your VCR remote control.

VCR Codes

Manufacturer	Code	Manufacturer	Code	Manufacturer	Code
Admiral	06 21 25 27	Images	30	Sears	02 07 10 25 26 32
Aiwa	03 17 18 19 20 21 22 / 28 31	ITT	10 17 19 21	Semitsu	22 25 27 33
Akai	17	J.C.Penny	02 03 05 10 18 25 31	Sharp	06 21
Astra	03 10 18 29 30 31	Jensen	17 20	Shintom	22 31
Audio Dynamics	17 18	JVC	00 10 17 19	Shogun	03 10 18 29 30 31
Aventura	03 17 18 19 20 21 22 / 28 31	JVC "B"	01	Signature	06 21
Beaumark	02 03 04 05 06 34	Kenwood	17 18 19 20	Singer	22
Belcor	22 33	KHL	20 21 22	Sony	11 14 20 21 22
Bell & Howell	07 11	Lloyds	03 17 18 19 20 21 22 28 31	Soundesign	03 17 18 19 25 28 31
Broksonic	08 22 28	Logik	03 11 13 17 18 19 21 28 31	Sylvania	05 12 16 21 25
Candle	03 10 18 29 30 31	Magnasonic	03 10 18 22 29 30 31 33	Symphonic	03 17 18 19 28 31
Canon	02 03 04 05 06 12 / 25 34	Magnavox	05 12 16 21 31	Sygmax	22 33
Cape Hart	22 33	Magnin	03 10 18 29 30 31	Tatung	17 20 21 22
Carrera	03 10 18 29 30 31	Marantz	18	Teto	03 06 12 17 18 19 / 28 31
Citizen	10 21 29 31 33	Marta	10 21 29 31 33	Technics	02 03 04 25 34
Classic	10 21 29 31 33	Matsui	03 10 11 17 18 20 21 22 29	Technivox	10 21 29 31 33
Colortyme	18	Megasonic	30 31	Teknika	10 21
Craig	03 07	Memorex	02 07 10 32	Telefunken	09 20 21 22
Crosley	03 17 18 19 20 21 22 / 28 31	MGA	07 10 11 21 25	Thomas	03 17 18 29 31
Curtis	03 10 18 22 29 30 31 33	Midland	13 31	TMK	09 21
Curtis Mathes	02 03 04 05 06 12 25 34	Minolta	03 10 18 29 30 31	Toshiba	02 16 31
Cyberex	03 10 18 29 30 31	Mitsubishi	02 16 23 29 31	Totevision	03 10 18 29 30 31
Deawoo/Daytron	22 33	Mont. Ward	13 25 27	Unilech	03 10 18 29 30 31
DBX	17 18	MTC	06 21 22	Vector Research	18
Denon	02 03 04 05 06 34	Multitech	03 10 17 18 19 20 21 22 28	Video Concepts	18
Dumont	03 10 18 29 30 31	National	29 30 31	Videosonic	11 17 18 20 21 22
Dynatech	03 17 18 19 20 21 22 / 28 31	NEC	03 06 17 18 19 28 31 34	XR-1000	03 17 18 19 21
Dynatone	10 21 29 31 33	Nikko	02 03 04 05	Yamaha	11 17 18 20
Electrohome	13 26	Olympus	17 18	Zenith	14 15
Electron	02 03 04 05 06 34	Optonica	10 21 29 31 33		
Electrophonic	10 17 19 20	Panasonic	02 03 04 25 27 34		
Emerson	07 08 09 10 13 16 25 28	Paxsonic	05 06 12 21		
Encore	02 03 04 05 06 12 25 34	Pentax	02 03 04 25 31 34		
Everex	02 16 23 29 31	Philco	02 23 25		
Fisher	07 11 24 32	Philips	02 03 04 05 00 12 22 25		
Funai	03 17 18 19 20 21 22	Pilot	33 34		
General Electric	03 04 05 06 25 34	Pioneer	05 12 16 21 25		
Go Video	30	Portland	02 16 23 29 31		
Goldstar	10 21 29 31 33	ProScan	05 22 33 34		
Granada	02 03 04 05 06 12 25 34	Pulser	03 10 18 22 29 30 31 33		
Harley Davidson	03 17 18 19 20 21 22 / 28 31	Quasar	02 03 04 25 34		
Harman Kardon	13	Radix	10 21 29 31 33		
Harvard	22	RCA	02 03 04 05 06 21 25		
Hitachi	02 16 23 29 31	Realistic	07 10 11 21 25		
Homeline	10 21 29 31 33	Samsung	03 10 18 29 30 31		
		Sansui	17 19 21		
		Scott	08 09 13 28		

INITIAL SETUP

NOTES:

Nearly all cable companies use one of the following:

STD
(Standard)
HRC
(Harmonically Related Carrier)
IRC
(Incrementally Related Carrier)

🖐 AUTO TUNER SETUP

During Auto Tuner Setup, the TV will automatically scan through all available channels and memorize the active ones.

△▽ To AUTO TUNER SETUP
◁▷ To operate

AUTO (STD, HRC, IRC)
AUTO (OTHERS)

△▷ For AUTO (STD, HRC, IRC)**
◁▷ To operate

NOW
PROGRAMMING!
▶▶▶ ☐ ▶▶
48

Programming takes 3 to 4 minutes

PROGRAMMING OVER!

** AUTO (STD, HRC, IRC) will access all over-the-air broadcast channels and more than 99% of cable systems. If the channels on your cable system are not selected after this procedure, use (AUTO OTHERS).

☐ Noise Mute will not work while Auto Tuner Setup is working.

☐ During Auto Tuner Setup the TV will be programmed to receive only active channels. Once the channels are activated here, they are automatically included in scan.

☐ Some weak or distant channels may be included in scan. You can delete them from scanning by removing the "√" mark in the SCAN column in the Channel Summary menu.

🖐 CHANNEL SUMMARY

You can add or delete channels from the channel scanning, and lock out any "unauthorized" viewers from up to all 181 channels.

△▽ To CHANNEL SUMMARY
◁▷ To operate

SCAN

You can manually set channels to scan that were too weak to be picked up by Auto Tuner Setup. Or, if a channel was too weak for a good picture but was picked up anyway, delete it by removing the √.

(PRESS) CHANNEL -/+ to select the channel
△▽ To the SCAN column
◁▷ To include or delete from scan

CHNG	SCAN	ID	🔒	CHNG	SCAN	ID	🔒
01	—			06	√		
02	√	CBS		07	√		
03	√	ABC		08	√		
04	√	NBC		09	√		
05	√			10	√		

(PRESS) Exit when finished

☐ Some cable systems experience interference from radio frequencies on Cable Channel 95. You can delete this channel from scanning by removing the √.

STATION ID

You can label up to 25 channels with a station ID of up to four letters, using numbers, letters, or common keyboard characters.

△▽ To ID column and ◁▷ to operate

STATION ID
CHANNEL 07

△▽ To choose each letter and ◁▷ to accept and move to the next letter
△▽ To FINISH and ◁▷ to save

USING THE MENU

USING THIS GUIDE

SYMBOLS USED IN THIS GUIDE:

△▽ Up and down arrows indicate you should press the Menu Up or Menu Down button. This function allows you to:
  • Move vertically in the main menu
  • Move through a submenu, or
  • Move to the next letter, number, or other choice in a submenu
  • Back up to correct an error

◁▷ Left and right arrows indicate you should press the Menu Left or Menu Right button to:
  • Select the highlighted item, or
  • Select the options in a submenu

(PRESS) The "Press Button" means press that button on the remote control

🖐 The helping hand points to the active, or highlighted item

Button names are always WRITTEN IN SMALL CAPITAL LETTERS In order to avoid confusion with menu functions of the same name.

WORKING THE MENUS

To use the Menu, press any of the remote's 4-way cursor control buttons and the JVC scrolling menu will appear on the screen. The item that appears yellow is the selected item.

Factory settings begin with the Picture Settings menu. However, since Initial Setup is so important, this guide begins here.

*Please note that the menu screens depicted in this instruction book are not actual representations of the screens but are intended to illustrate the order and wording of the menus. The actual menu backgrounds are clear in color.

PICTURE SETTINGS
☐ PREVIOUS
☐ TINT
COLOR
PICTURE
BRIGHT
DETAIL
☐ NEXT PAGE
SELECT BY ▽▽
OPERATE BY ◁▷ EXIT BY 🔘

PICTURE SETTINGS
☐ PREVIOUS
☐ NOTCH   ON OFF
NOISE MUTE   ON OFF
SET VIDEO STATUS
☐ NEXT PAGE
SELECT BY ▽▽
OPERATE BY ◁▷ EXIT BY 🔘

SOUND ADJUST
☐ PREVIOUS
☐ BASS
TREBLE
BALANCE
MTS   STEREO SAP MONO
MAIN DUAL
☐ NEXT PAGE
SELECT BY ▽▽
OPERATE BY ◁▷ EXIT BY 🔘

CLOCK/TIMERS
☐ PREVIOUS
☐ SET CLOCK
ON/OFF TIMER
SET LOCK CODE
☐ NEXT PAGE
SELECT BY ▽▽
OPERATE BY ◁▷ EXIT BY 🔘

INITIAL SETUP
☐ PREVIOUS
☐ TV SPEAKER   ON OFF
AUDIO OUT   VAR1 FIXE
LANGUAGE
CLOSED CAPTION
☐ NEXT PAGE
SELECT BY ▽▽
OPERATE BY ◁▷ EXIT BY 🔘

INITIAL SETUP
☐ PREVIOUS
☐ AUTO TUNER SETUP
CHANNEL SUMMARY
TUNER MODE   CABLE
AUTO DEMO
☐ NEXT PAGE
SELECT BY ▽▽
OPERATE BY ◁▷ EXIT BY 🔘

NOTCH

The Notch Filter sharpens the edges of graphics and text.

◄► To NOTCH
▼ To activate or deactivate

NOISE MUTE

Eliminates noise from channels that are not broadcasting or are too weak.

◄► To NOISE MUTE
▼ To turn ON/OFF

□ Noise Mute does not operate during the Auto Tuner Setup or while in the Channel Summary screen.

SET VIDEO STATUS

Save Picture Settings as "Choice".

◄► To SET VIDEO STATUS
▼ To operate

```
TINT      ---------
COLOR     ---------
PICTURE   ---------
BRIGHT    ---------
DETAIL    ---------
        SAVE AS CHOICE
```

▼ To operate the TINT option
▼ To move to the next option

Repeat the above steps to set each option.

◄► To SAVE AS CHOICE
▼ To save settings and exit

□ Access "Choice" by pressing the VIDEO STATUS button on the remote control.

TINT

◄► To TINT
▲ To accentuate green
▼ To accentuate red
◄► To move to the next

COLOR

◄► To COLOR
▲ To make colors more vivid
▼ To subdue colors
◄► To move to the next

PICTURE

◄► To PICTURE
▲ To increase contrast
▼ To decrease contrast
◄► To move to the next

BRIGHT

◄► To BRIGHT
▲ To lighten picture
▼ To darken picture
◄► To move to the next

DETAIL

◄► To DETAIL
▲ To make picture sharper
▼ To make picture smoother
◄► To move to the next

TUNER MODE

Tuner Mode lets you choose between over-the-air broadcasts (AIR) or cable (CABLE) stations.

◄► To TUNER MODE
▲ To operate

```
TUNER MODE   CABLE   AIR
```

(PRESS) Exit when finished

□ When you set the Tuner Mode to CABLE, the channel display will appear blue. When set to AIR, the display will appear yellow.

□ Cable mode requires a cable hookup, see page 6 for details.

AUTO DEMO

The Auto Demo is an onscreen demonstration of the features of your JVC television. Let it run, it takes about six minutes, and you will see exactly what your new TV can do.

◄► To AUTO DEMO
▲ To operate

```
JVC
FEATURE
DEMONSTRATION
```

(PRESS) Any key to stop the Auto Demo

□ You can also start the Auto Demo when you push the front panel CHANNEL+ and VOLUME− buttons at the same time.

CHANNEL GUARD / LOCK

◄► To CHANNEL SUMMARY
▲ To operate

CH NO	SCAN	ID	🔒	CH NO	SCAN	ID	🔒
01	√	CBS		06			
02	√	ABC		07			
03	√	NBC		08			
04	√			09			
05				10			

◄► To 🔒 column

(PRESS) 0 (zero) to lock or unlock a channel

Use the CHANNEL −/+ button to go to any other channel you want to lock

CHANNEL GUARD MESSAGE

This message appears when someone attempts to watch a guarded channel:

```
THIS CHANNEL IS LOCKED BY
CHANNEL GUARD.
PLEASE ENTER LOCK CODE BY
10 KEY PAD TO UNLOCK IT.
```

To watch a locked channel, enter the lock code on the 10 key pad.

If the wrong lock code is entered this message will appear:

```
INVALID LOCK CODE!
```

18

BASS

△▽ To BASS slidebar
△ To emphasize bass
▽ To reduce bass
△▽ To move to next

TREBLE

△▽ To TREBLE
△ To increase treble
▽ To decrease treble
△▽ To move to next

BALANCE

△▽ To BALANCE
△ To shift balance to the right
▽ To shift balance to the left
△▽ To move to next

MTS (Multi-Channel Television Sound)

MTS technology gives you a choice among stereo, mono, and Second Audio Programs (SAP).

△▽ To MTS

MTS   STEREO   SAP   MONO
       ON AIR ON AIR

△▽ To select the mode

(The ON AIR arrow tells you if the current signal contains stereo or SAP)

☐ Keep the TV in STEREO mode to get the fullest sound quality.

☐ SAP will allow you to hear an alternative soundtrack, if available.

☐ Choose MONO only to reduce excess noise in a program.

Some Sound Advice

You can tell if a program is broadcast in stereo by the position of the ON AIR arrow in the MTS menu. Unfortunately, it is common for some cable companies to squash the transmission of stereo programs to mono because they only have mono equipment. If connected to a cable system, the sound is at the mercy of that cable company — if they broadcast in mono, you receive mono sound regardless of the original stereo programming.

Fortunately, most programs that are broadcast in stereo are aired on the major television networks. If you connect your TV to an antenna instead of cable, and set the Tuner Mode (page 16) to "Air" instead of "Cable," you will be able to pick up stereo broadcasts in stereo.

19

SET CLOCK

The Clock is the heart of all timer functions. You must set the clock before timer functions will work.

△▽ To SET CLOCK

△▽ To operate

TIME   1 2 : 3 4   AM

START CLOCK

△▽ To set the hour (AM/PM)
▷ To move to minutes
△▽ To set the minutes
▷ To move to START CLOCK when done with settings
△▽ To start the clock

THANK YOU !!

☐ If the TV is unplugged or you experience a power outage, you must reset the clock in order for any of your timer functions to work. If you attempt to operate a Timer and you did not set the clock you will get the following message:

POWER INTERRUPTED.
WOULD YOU SET CLOCK FIRST?
        YES
        NO

After a power interruption clock will be cancelled and you will get this message if you try to use the On/Off Timer:

YOU CANNOT OPERATE
ON/OFF TIMER

ON/OFF TIMER

You tell the TV to turn on and off. Use it as an alarm to wake up, as a program reminder, or as a decoy when you're out of the house.

△▽ To ON/OFF TIMER

△▽ To operate

ON TIME   12 : 00 AM
OFF TIME   12 : 00 AM
CHANNEL   A 07
MODE   ONCE   EVERYDAY
ON/OFF TIMER   YES NO
               FINISH
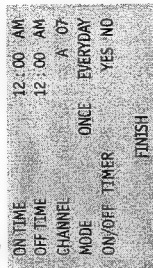
△▽ To set the hour (AM/PM) you want the TV to turn on
△▽ To move to minutes
△▽ To set the minutes
▷ To accept ON TIME and to move to OFF TIME (set time again)
▷ To move to CHANNEL
△▽ To select channel
△▽ To move to MODE
△▽ Choose ONCE or EVERYDAY
▷ To YES NO
△▽ Choose YES for on, NO for off
▷ To FINISH
△▽ To save settings

☐ In order for ON/OFF Timer to work, the clock must be set.

☐ ON/OFF Timer cannot be set to locked or guarded channels.

BUTTON FUNCTIONS

◁▷ To select a caption channel (CC1 to CC4)

▷ To accept that channel and move to TEXT

◁▽ To select a text channel (T1 to T4)

▷ To accept that channel and move to FINISH

◁▽ To exit and save settings

PIP (PICTURE IN PICTURE)

PIP allows you to view two pictures simultaneously.

(PRESS) (PIP) ON/OFF

2-TUNER PIP

(AV-35750, AV-32750, and AV-27750 ONLY.) CHANNEL -/+ buttons in the PIP section of the remote control make PIP so simple to use. You don't need to hook up a VCR or other video source to get PIP. We built in a second tuner for the easiest PIP to use in the industry.

SOURCE

You can select from the various inputs you may have hooked up to your TV as the source for the PIP screen.

(PRESS) SOURCE

┌─ ANTENNA/CABLE →V-1 → V-2* ─┐
└─────────────────────────────┘

*Only available on AV-35750, AV-32750 and AV-27750.

SWAP

You can swap the picture in the main screen with the picture in the PIP screen.

(PRESS) SWAP

FREEZE

You can freeze the main screen into a PIP picture, or freeze the PIP screen.

(PRESS) FREEZE

☐ When PIP is off, Freeze will put the main screen into a still PIP picture.

☐ When PIP is on, Freeze will stop the PIP picture.

MOVE

You can move the PIP screen to any of the TV's four corners.

(PRESS) MOVE
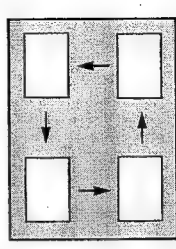
☐ Each press of the Move button will shift the PIP picture one position.

PIP CHANNEL –/+

On models with PIP CHANNEL –/+ buttons you can change the PIP channel without going back to the main screen. (You do not need to go back to the main screen to change from Cable to Air or Air to Cable.)

GENERAL ITEMS

SET LOCK CODE

The Lock Code locks and unlocks Channel Guard.

◁▽ To SET LOCK CODE

◁▽ To operate

The padlock 🔒 appears

Press the access code zero (0)

┌─────────────────┐
│ LOCK CODE   0 0 0 │
│   │
│   FINISH   │
└─────────────────┘

◁▽ To the first number place

◁▽ To choose the number

◁▷ To move to the next place

Continue for all three numbers

◁▷ To FINISH

◁▽ To save settings and exit

☐ If you forget the Lock Code you can set another one the same way.

☐ After a power interruption, you must reset the lock code.

TV SPEAKER

You can listen to the TV speakers, or if your set is connected to a stereo, turn them off to listen to the stereo speakers.

◁▷ To TV SPEAKER

◁▽ To turn the speaker ON or OFF

┌──────────────────────┐
│ TV SPEAKER   ON   OFF │
└──────────────────────┘

(PRESS) EXIT when finished

☐ TV Speaker will be cancelled after a power interruption.

☐ Before you set TV Speaker from Off to On, make sure that the volume level is low!

AUDIO OUT

Select fixed level or variable level audio output signals.

◁▽ To AUDIO OUT

┌──────────────────────┐
│ AUDIO OUT   VARI FIX │
└──────────────────────┘

◁▷ To FIX or VARI

VARI: Adjust the volume of the external speaker by using the TV VOLUME +/- button or the TV's remote.

FIX: Adjust the volume of the external speaker with the audio device controls.

☐ When using external amplifiers and speakers, shut off the TV's speakers (page 20).

LANGUAGE

Choose from English or French onscreen menus and displays.

◁▷ To LANGUAGE

◁▽ To activate

┌──────────────────────┐
│ LANGUAGE ENG   FRE   │
└──────────────────────┘

(PRESS) EXIT when finished

CLOSED CAPTION

If included in a program, you can view closed captions or text information.

◁▷ To CLOSED CAPTION

◁▽ To operate

┌───────────────────────────┐
│ CAPTION   CC1 CC2 CC3 CC4 │
│ TEXT   T1 T2 T3 T4   │
│   FINISH   │
└───────────────────────────┘

HYPER SURROUND

Create a deep, 3-Dimensional sound effect by channeling the sound through the TV's front firing speakers.

100 +

The 100+ button accesses all channels above Channel 99.

To move to Channel 124:

(PRESS) 100+
(PRESS) 2 (two)
(PRESS) 4 (four)

VCR BUTTONS

The remote will control your VCR. You can play, rewind and fast-forward, record, pause, stop, channel scan, and power on and off.

□ The remote is preset to control a JVC VCR. Put in the code 00 for a JVC brand VCR. For any other brand, you must set the manufacturer's code (see pages 12 to 13).

TV / VIDEO

TV/Video selects the input mode.

(PRESS) TV/VIDEO

TV → VIDEO   AV-27730, AV-32720, AV-32730

TV → VIDEO-1 → VIDEO-2   AV-27750, AV-32750, AV-35750

MUTE

The Mute button turns the sound off completely when you press it. Or, it will restore the sound to the last level when you press it again.

RETURN+

There are two kinds of Return, regular and Return+.

Return+ — You can set a "return" channel to come back to when you scan with CHANNEL -/+.

(PRESS) RETURN+ and hold for 3 seconds
Scan through the channels with the CHANNEL -/+ button

(PRESS) RETURN+ to go back to the return channel

□ Pressing a number key or turning the TV's power off cancels Return+.

□ See page 11 for more information.

Return — You can set return to a channel after moving to another channel via the 10 key pad.

(PRESS) RETURN+
Move to another channel
(PRESS) RETURN+

NUMBER BUTTONS
10 KEY PAD

The Number Buttons are from 0 to 9. Press two number buttons to move to a channel.

To move to Channel 7:

(PRESS) 0 (zero)
(PRESS) 7 (seven)

DISPLAY

The Display screen shows the current status of timers and inputs.

(PRESS) DISPLAY

```
07
NOW              12:20 PM
SLEEP TIMER         OFF
ON/OFF TIMER    EVERYDAY
ON TIME          7:00 PM
OFF TIME        10:00 PM
```

□ The channel or AV input (Channel 07)
□ Current time (12:20 PM)
□ Sleep Timer status minutes remaining (OFF)
□ On/Off Timer status (Everyday, on at 7:00 PM, off at 10:00 PM)
□ Each press of the DISPLAY button changes the display mode:

DISPLAY → TIME → CHANNEL → OFF

CLOSED CAPTION

View the closed captions or text when included in a program.

(PRESS) CLOSED CAPTION

CC → TEXT → OFF

□ To change caption or text channels see pages 20 and 21.
□ To access a captioning option or to turn one off, allow the display to remain on screen until it disappears. In seconds the captions will start.

VIDEO STATUS

The Video Status button lets you select the "Choice" settings of the Set Video Status menu, Theater Status or reset to factory settings.

"Standard" resets the picture settings to factory standard levels.

"Choice" consists of the settings that you saved in the Set Video Status menu, page 16.

"Theater" for a film-like look to video.

(PRESS) VIDEO STATUS

CHOICE → THEATER → STANDARD

SLEEP TIMER

Sleep Timer turns off the TV for you in case you fall asleep. Program it to work in intervals of 15 minutes up to 180.

(PRESS) SLEEP TIMER

0 15 30 45 60 75 90 105 120 135 150 165 180

SLEEP TIMER MESSAGE:
20 seconds prior to the automatic shut-off, this message will appear:

GOOD NIGHT !
PUSH SLEEP TIMER BUTTON TO EXTEND

You then have 20 seconds to press the Sleep Timer button to delay turn off for another 15 minutes.

LIMITED WARRANTY **JVC**

For Canadian model televisions, see separate sheets for Warranty/Garantie and JVC Authorized Service Centers in Canada.

JVC COMPANY OF AMERICA warrants this product and all parts thereof, except as set forth below TO THE ORIGINAL PURCHASER AT RETAIL to be FREE FROM DEFECTIVE MATERIALS AND WORKMANSHIP from the date of original purchase for the period as shown below (the "Warranty Period"). The picture tube is covered for two years.

Model No.	Serial No.	Parts	Labor
		1 YEAR	1 YEAR

This limited warranty is valid only in the fifty (50) United States, The District of Columbia and the Commonwealth of Puerto Rico.

JVC WILL:

If this product is found to be defective, repair or replace defective parts at no charge to the original owner. Such repairs will be made during regular business hours only at JVC authorized service centers. All parts repaired or replaced are warrantied for the remainder of this Warranty Period only. All products and parts should be brought to an authorized service center on a carry-in basis except for those models with a screen size larger than 25 inches which are covered on an in-home basis.

YOU MUST:

• Return your products to a JVC authorized service center with a copy of your bill of sale. For the authorized JVC service center nearest you, call toll free (800) 252-5722.

• If service is not locally available, box the product carefully, preferably in its original container, and ship it, insured, to the nearest authorized service center with a copy of the bill of sale and a letter of explanation as to the problem. Call the toll free number above for the address.

WHAT IS NOT COVERED:

1) Products which have been subject to abuse, accident, alteration, modification, tampering, negligence, misuse, faulty installation, lack of reasonable care, or if repaired or serviced by anyone other than a service facility authorized by JVC to render such service, or if connected to any attachment not provided with the products, or if the model or serial number has been altered, tampered with, or removed;

2) Initial installation, removal for repair, and reinstallation after repair is not covered;

3) Operational adjustments covered in the Owner's manual, normal maintenance, video and audio head cleaning;

4) Damage that occurs during shipment, due to an act of God, or of consequence to cosmetic changes;

5) Signal reception problems and failures due to line power surges;

6) Video Pick-up Tubes/CCD Image Sensor, Cartridge, Stylus (Needle) are covered for 90 days from the date of purchase;

7) Accessories, and;

8) Batteries (except for rechargeable batteries which are covered for 90 days from date of purchase.)

There are no express warranties except as listed above.

THE DURATION OF ANY IMPLIED WARRANTIES, INCLUDING THE IMPLIED WARRANTY OF MERCHANTABILTY, IS LIMITED TO THE DURATION OF THE EXPRESS WARRANTY HEREIN.

JVC SHALL NOT BE LIABLE FOR THE LOSS OF USE OF THIS PRODUCT, INCONVENIENCE, LOSS OR ANY OTHER DAMAGES, WHETHER DIRECT, INCIDENTAL OR CONSEQUENTIAL (INCLUDING, WITHOUT LIMITATION, DAMAGE TO TAPES, RECORDS OR DISCS) RESULTING FROM THE USE OF THIS PRODUCT, OR ARISING OUT OF ANY BREACH OF THIS WARRANTY. ALL EXPRESS AND IMPLIED WARRANTIES, INCLUDING THE WARRANTY OF MERCHANTABILITY AND FITNESS FOR PARTICULAR PURPOSE, ARE LIMITED TO THE WARRANTY PERIOD SET FORTH ABOVE.

Some states do not allow the exclusion of incidental or consequential damages or limitations on how long the warranty lasts, so these may not apply to you. This warranty gives you specific legal rights and you may also have other rights which vary state to state.

If you have questions concerning your JVC product, please contact our Customer Relations Department:

JVC COMPANY OF AMERICA   41 Slater Drive
DIVISION OF US JVC CORP.   Elmwood Park, New Jersey 07407

Refurbished products carry a separate warranty. This warranty does not apply for details of refurbished product warranty. Please refer to the refurbished product warranty information packaged with each refurbished product.

AUTHORIZED SERVICE CENTERS

For Canadian model televisions, see separate sheets for Warranty/Garantie and JVC Authorized Service Centers in Canada.

CALL TOLL FREE (800) 252-5722

1) To locate the JVC Authorized Service Center nearest you.

2) To purchase parts or accessories.

3) For customer relations or hook-up assistance.

4) To locate the JVC authorized dealer nearest you.

**JVC SERVICE & ENGINEERING
COMPANY OF AMERICA
DIVISION OF U.S. JVC CORP.**

FACTORY SERVICE CENTER LOCATIONS

Dear customer;

In order to receive the most satisfaction from your purchase, read this guide before operating the unit, and before calling for service make sure you check the Troubleshooting pages at the end of this book. In the event that repair is necessary, or for the address nearest you, please refer to the factory service center list below, or within the continental United States, call the toll free number above for an authorized service center. Remember to retain your bill of sale for warranty service.

107 Little Falls Road	1500 Lakes Parkway
Fairfield, NJ 07004-2105	Lawrenceville, GA 30243-5357
(201) 808-9279	(404) 339-2522
5665 Corporate Avenue	10700 Hammerly Suite 110
Cypress, CA 90630-0024	Houston, TX 77043
(714) 229-8011	(713) 935-9331
230 Elliot Street	8192 State Road 84
Ashland, MA 01721-2377	Davie, FL 33324
(508) 881-5923	(954) 472-1960

705 Enterprise Street	
Aurora, IL 60504-8149	
(708) 851-7855	
2969 Mapunapuna Place	
Honolulu, HA 96819-2040	
(808) 833-5828	
890 Dubuque Avenue	
South San Francisco, CA 94080-1804	
(415) 871-2666	

Sophisticated electronic products may require occasional service. Just as quality is a keyword in the engineering and production of the wide array of JVC products, service is key to maintaining the high level of performance for which JVC is world famous. The JVC service and engineering organization stands behind our products.

National Headquarters
JVC Service & Engineering Company of America
Division of U.S. JVC Corp.
107 Little Falls Road
Fairfield, NJ 07004-2105

THERE ARE NO USER
SERVICEABLE PARTS INSIDE
THIS TV! TO PREVENT ELEC-
TRIC SHOCK, DO NOT OPEN
CABINET AND DO NOT
ATTEMPT TO
SERVICE THIS TV YOURSELF.

SHIPPING INSTRUCTIONS

• Pack the TV in the original carton or one of equivalent size and strength. Use the original foam cushions or equivalent padding.

• Enclose a letter of explanation stating the problem that exists and a copy of the bill of sale.

• Print your home address on both the outside and inside of the shipping carton.

• Send to address nearest you in the list above.

SPECIFICATIONS

MODEL	AV-27730	AV-27750	AV-32720 / AV-32730	AV-32750	AV-35750
Type	Color Television				
Reception Format	NTSC system, BTSC system (Multichannel Sound)				
Reception Range	VHF 2 to 13, UHF 14 to 69 Sub Mid, Mid, SUper, Hyper and Ultra bands (181-channel frequency synthesizer system)				
Power Source	AC 120 V, 60 Hz				
Power Consumption	Max. 115W 1.4 A	Max. 120W 1.5 A	Max. 135W 1.8 A		
Screen Size	27" / 69 cm measured diagonally Full square		32" / 78 cm measured diagonally Full square		35" / 89 cm measured diagonally, Full square
Audio Output	3 W + 3 W				
Speakers	2" x 4 3/4" / 5 x 12 cm oblong type x 2		3 3/16" x 4 3/4" / 8 x 12 cm oval x 2		
Antenna Terminal	75 ohms (VHF/UHF) terminal (F-type connector)				
External Input Jacks	Video: 1 Vp-p, 75 ohms Audio: 500 mVrms (-4dBs), high impedance				
S-Video Input Jack		Y: 1 Vp-p positive, 75 ohms (negative sync provided) C: 0.286 Vp-p (burst signal), 75 ohms			
Audio Output Jacks	More than 0 to 1550 mVrms (+6 dBs), low impedance (400 Hz when modulated 100%)				
AV Compu Link Jacks	—	—		3.5 mm ø mini jack x 2	
External Dimensions (W x H x D)	25 7/8" x 23 1/8" x 20 1/2" 65.5 x 58.6 x 51.8 cm		30 1/4" x 26 1/8" x 21 5/8" 76.8 x 66.4 x 54.8 cm		33 7/8" x 30 1/8" x 23 3/4" 86.0 x 76.5 x 60.3 cm
Weight (lbs./Kg.)	73.3 / 33.3	114.0 / 51.8	114.7 / 52.1		152.3 / 69.2
Accessories	Remote control x 1 AA Batteries x 2				

Specifications subject to change without notice.

TROUBLESHOOTING

PROBLEMS	CHECK
No power	• See if the power cord became unplugged. • Perhaps you have experienced a blown circuit breaker or fuse or a power outage.
No picture or sound	• The antenna could be disconnected. • The input mode (TV or Video) could not be set properly, refer to page 23. • The tuner mode (in the menu selection) could be set improperly, refer to page 16. • The station may be having difficulties, check to see if other channels are operating normally.
Remote control is not operating	• Check that the batteries are still working and properly installed. • Make sure there are no objects blocking a clear path from the remote to the TV. • Check that the TV/CATV switch is in the proper position — set to TV to view television.
You cannot select a certain channel	• Maybe you are too far from the TV, you must be within 23 feet (or 7 meters). • Make sure the channels are programmed. See Channel Summary, page 15. • Perhaps the channel is locked, select it with the 10 key pad and follow instructions.
Power turns off	• Perhaps the On/Off Timer is set, press the power button, check page 19. • The power was interrupted or the power cord unplugged. Reset the clock, check page 19. • The Sleep Timer may be set.
The clock is wrong	• The power was interrupted and the clock not reset. Reset the clock, check page 19.

PICTURE	CHECK
Poor color quality	• Tint and color may be improperly adjusted. Check page 17. • Video Status mode may be set to an inappropriate setting. Check pages 17 and 22.
Lines or streaks across the screen	• There could be interference from another energy consuming appliance, such as a computer, another TV or VCR. Move any other such appliances farther away from the TV.
Spotted picture	• There could be interference from a running high wattage appliance such as a hair-dryer, vacuum cleaner, or neon sign. You will have to move the antenna away from the source of the interference or change it to a coaxial cable which is less prone to interference.
Double picture (Ghosts)	• A building or airplane can reflect the original signal producing a second, delayed one. Adjust the antenna position.
Snowy picture/ Image noise	• The antenna may be damaged, disconnected or turned. Check the antenna connection, page 6. If it is damaged, you will have to replace it.
Screen is 80% black	• Closed Caption Text Mode is on. Press the Closed Caption button until you select Off.

SOUND	CHECK
Bilingual or stereo programs can't be heard	• Make sure the MTS mode is properly set. Refer to page 18 for details on setting MTS Modes.
No sound from TV speakers at all	• TV Speakers may be turned off in the menu, see page 20. • The volume may be set at zero (0) or the MUTE button pressed.

NOT A PROBLEM	DON'T WORRY ABOUT THIS, IT'S NORMAL
Static electricity	• It is normal to feel a surge of static electricity if you brush over or touch the screen.
Occasional crackling sounds	• It is normal for the TV to emit crackling sounds when turned on or off. Unless the sound or picture become abnormal, this is fine.

AV-27750(US&CA) STANDARD CIRCUIT DIAGRAM

■NOTE ON USING CIRCUIT DIAGRAMS

1.SAFETY

The components identified by the ⚠ symbol and shading are critical for safety. For continued safety replace safety critical components only with manufactures recommended parts.

2.SPECIFIED VOLTAGE AND WAVEFORM VALUES

The voltage and waveform values have been measured under the following conditions.

(1)Input signal :Color bar signal
(2)Setting positions
of each knob/button
and variable resistor :Original setting position when shipped
(3)Internal resistance of tester :DC 20kΩ/V
(4)Oscilloscope sweeping time :H ⇒20µS/div
:V ⇒5mS/div
:Others ⇒ Sweeping time is specified
(5)Voltage values :All DC voltage values

* Since the voltage values of signal circuit vary to some extent according to adjustments, use them as reference values.

3.INDICATION OF PARTS SYMBOL[EXAMPLE]

●In the PW board :R1209→R209

4.INDICATIONS ON THE CIRCUIT DIAGRAM

(1)Resistors
●Resistance value
No unit :[Ω]
K :[KΩ]
M :[MΩ]
●Rated allowable power
No indication :1/6[W]
Others :As specified
●Type
No indication :Carbon resistor
OMR :Oxide metal film resistor
MFR :Metal film resistor
MPR :Metal plate resistor
UNFR :Uninflammable resistor
FR :Fusible resistor
* Composition resistor 1/2 [W] is specified as 1/2S or Comp.

(2)Capacitors
●Capacitance value
1 or higher :[pF]
less than 1 :[µF]
●Withstand voltage
No indication :DC50[V]
Others :DC withstand voltage[V]
AC indicated :AC withstand voltage[V]
* Electrolytic Capacitors
47/50[Example]:Capacitance value[µF]/withstand voltage[V]

●Type
No indication :Ceramic capacitor
MY :Mylar capacitor
MM :Metalized mylar capacitor
PP :Polypropylene capacitor
MPP :Metalized polypropylene capacitor
MF :Metalized film capacitor
TF :Thin film capacitor
BP :Bipolar electrolytic capacitor
TAN :Tantalum capacitor

(3)Coils
No unit :[µH]
Others :As specified

(4)Power Supply
━━━━━━━ :B1(136V)
▆▆▆▆ :B2(12V)
▆▁▆▁ :9V
▁▁▁▁ :5V
* Respective voltage values are indicated.

(5)Test Point
: Test point
: Only test point display

(6)Connecting method
▢ : Connector
◯ : Wrapping or soldering
→>— →>— : Receptacle

(7)Ground symbol
⊥ : LIVE side ground
⊤ : ISOLATED(NEUTRAL) side ground
⏚ : EARTH ground
▽ : DIGITAL ground
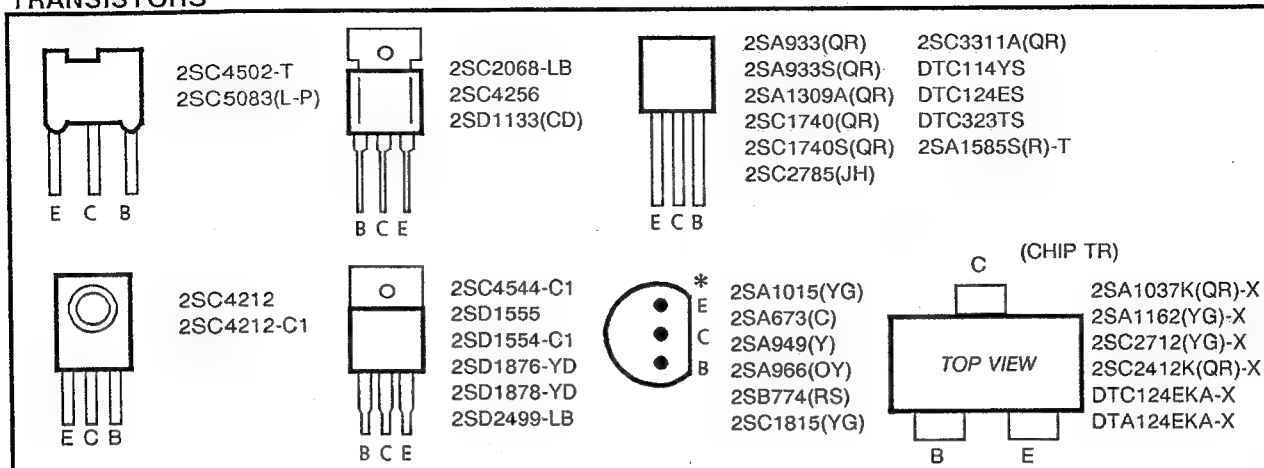
5.NOTE FOR REPAIRING SERVICE

This model's power circuit is partly different in the GND. The difference of the GND is shown by the LIVE : (⊥) side GND and the ISOLATED(NEUTRAL) : (⊤) side GND. Therefore, care must be taken for the following points.

(1) Do not touch the LIVE side GND or the LIVE side GND and the ISOLATED(NEUTRAL) side GND simultaneously. If the above caution is not respected, an electric shock may be caused. Therefore, make sure that the power cord is surely removed from the receptacle when, for example, the chassis is pulled out.

(2) Do not short between the LIVE side GND and ISOLATED(NEUTRAL) side GND or never measure with a measuring apparatus (oscilloscope, etc.) the LIVE side GND and ISOLATED(NEUTRAL) side GND at the same time. If the above precaution is not respected, a fuse or any parts will be broken.
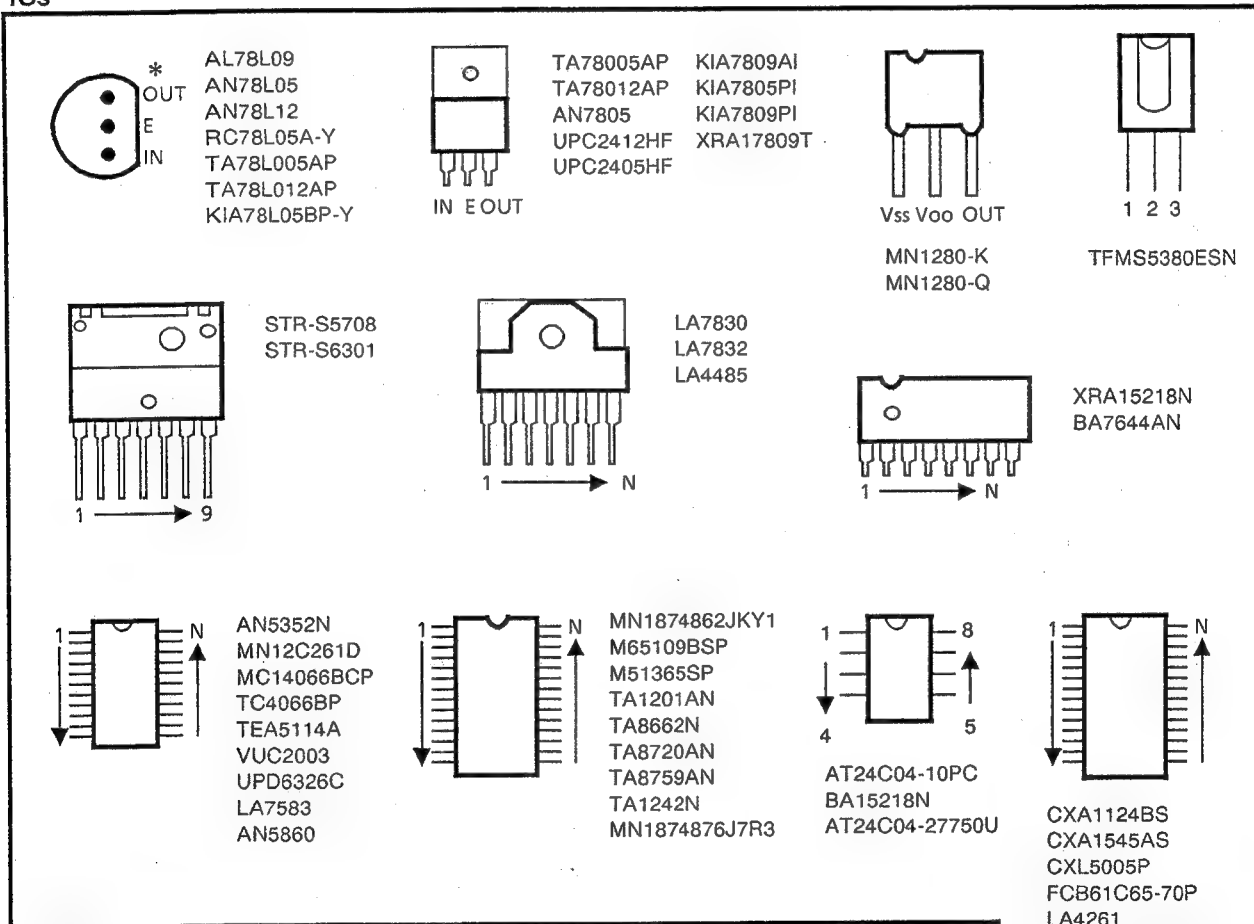
◇ Since the circuit diagram is a standard one, the circuit and circuit constants may be subject to change for improvement without any notice.
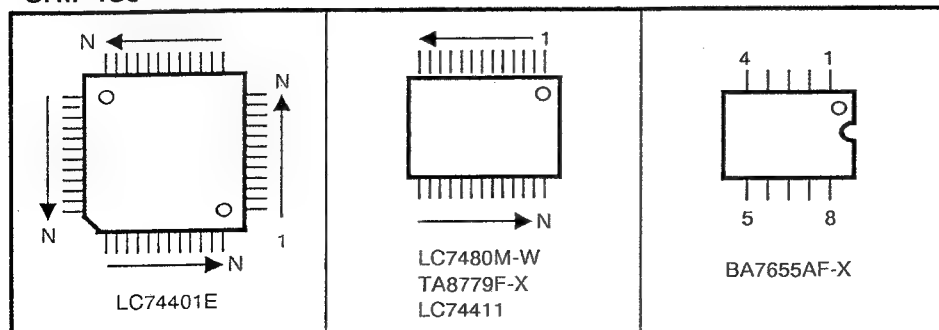
June 1996 No.51127

SEMICONDUCTOR SHAPES (* = Bottom view)

TRANSISTORS

2SC4502-T
2SC5083(L-P)

E C B

2SC2068-LB
2SC4256
2SD1133(CD)

B C E

2SA933(QR)   2SC3311A(QR)
2SA933S(QR)   DTC114YS
2SA1309A(QR)   DTC124ES
2SC1740(QR)   DTC323TS
2SC1740S(QR)   2SA1585S(R)-T
2SC2785(JH)

E C B

2SC4212
2SC4212-C1

E C B

2SC4544-C1
2SD1555
2SD1554-C1
2SD1876-YD
2SD1878-YD
2SD2499-LB

B C E

* E C B

2SA1015(YG)
2SA673(C)
2SA949(Y)
2SA966(OY)
2SB774(RS)
2SC1815(YG)

(CHIP TR)

C

TOP VIEW

B E

2SA1037K(QR)-X
2SA1162(YG)-X
2SC2712(YG)-X
2SC2412K(QR)-X
DTC124EKA-X
DTA124EKA-X

ICs

* OUT
E
IN

AL78L09
AN78L05
AN78L12
RC78L05A-Y
TA78L005AP
TA78L012AP
KIA78L05BP-Y

IN E OUT

TA78005AP   KIA7809AI
TA78012AP   KIA7805PI
AN7805   KIA7809PI
UPC2412HF   XRA17809T
UPC2405HF

Vss Voo OUT

MN1280-K
MN1280-Q

1 2 3

TFMS5380ESN

STR-S5708
STR-S6301

1 → 9

LA7830
LA7832
LA4485

1 → N

XRA15218N
BA7644AN

1 → N

1 → N

AN5352N
MN12C261D
MC14066BCP
TC4066BP
TEA5114A
VUC2003
UPD6326C
LA7583
AN5860

1 → N

MN1874862JKY1
M65109BSP
M51365SP
TA1201AN
TA8662N
TA8720AN
TA8759AN
TA1242N
MN1874876J7R3

1   8
4   5

AT24C04-10PC
BA15218N
AT24C04-27750U

1 → N

CXA1124BS
CXA1545AS
CXL5005P
FCB61C65-70P
LA4261
M37201M6-540SP
M50253P
M51496P
M52005P
PCF84C81P/064
SAA5231
SAA5243P/E
TDA1526
TDA3810
UPC1851CU
UPC1851CU-02
LA7403

CHIP ICs

N
N
N
N

LC74401E

← 1

N

LC7480M-W
TA8779F-X
LC74411

4   1
5   8

BA7655AF-X

■ CHANNEL CHART

(US) / (CA)

REMOTE CONTROL TRANSMITTER CIRCUIT DIAGRAM　[RM-C742-1C]

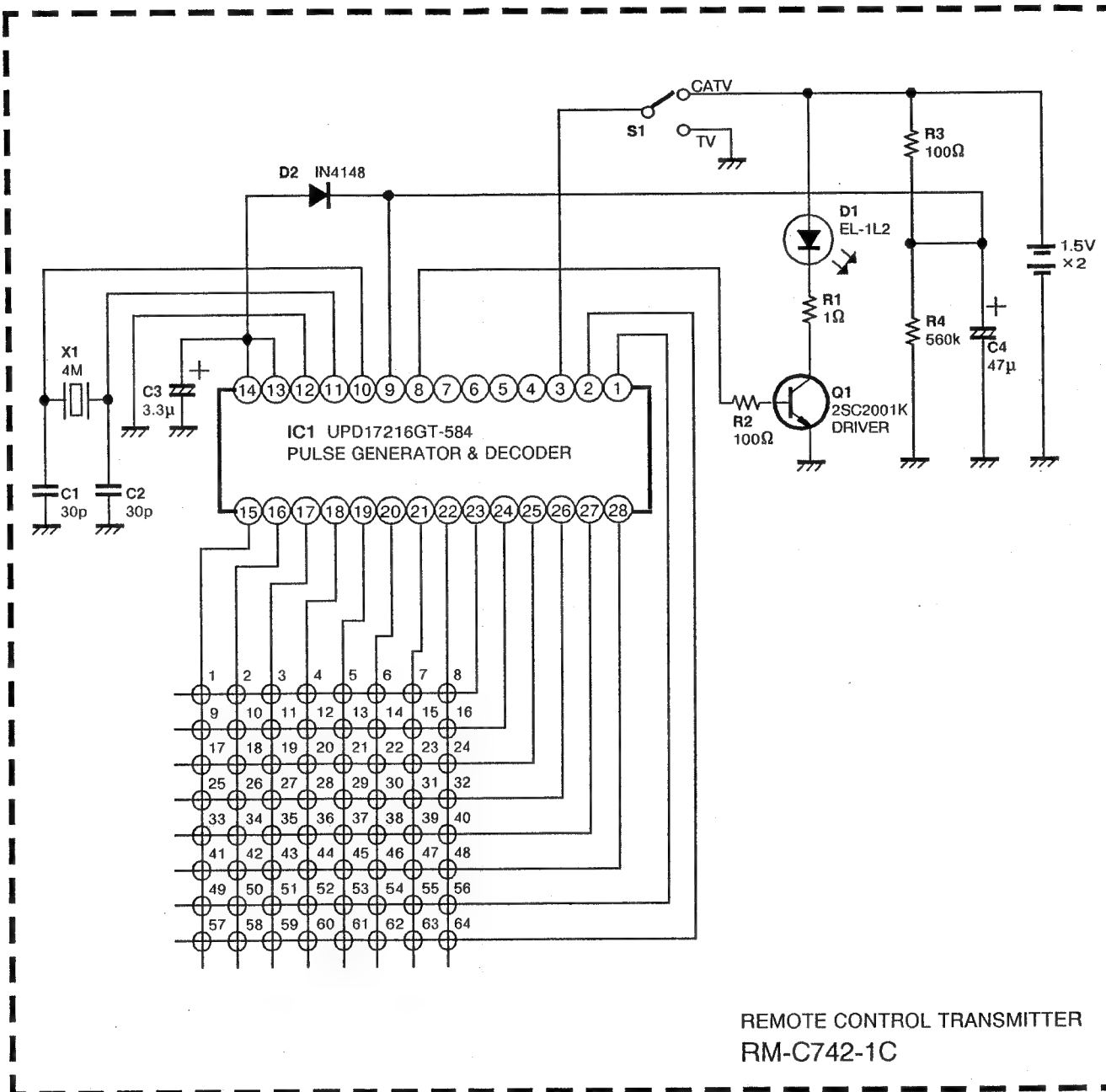
REMOTE CONTROL TRANSMITTER

RM-C742-1C

NOTE:
TO RECEIVE THE SUBSCRIPTION OR PREMIUM PROGRAMMING FROM CERTAIN CABLE COMPANIES. SPECIAL ADAPTERS MAY BE REQUIRED.
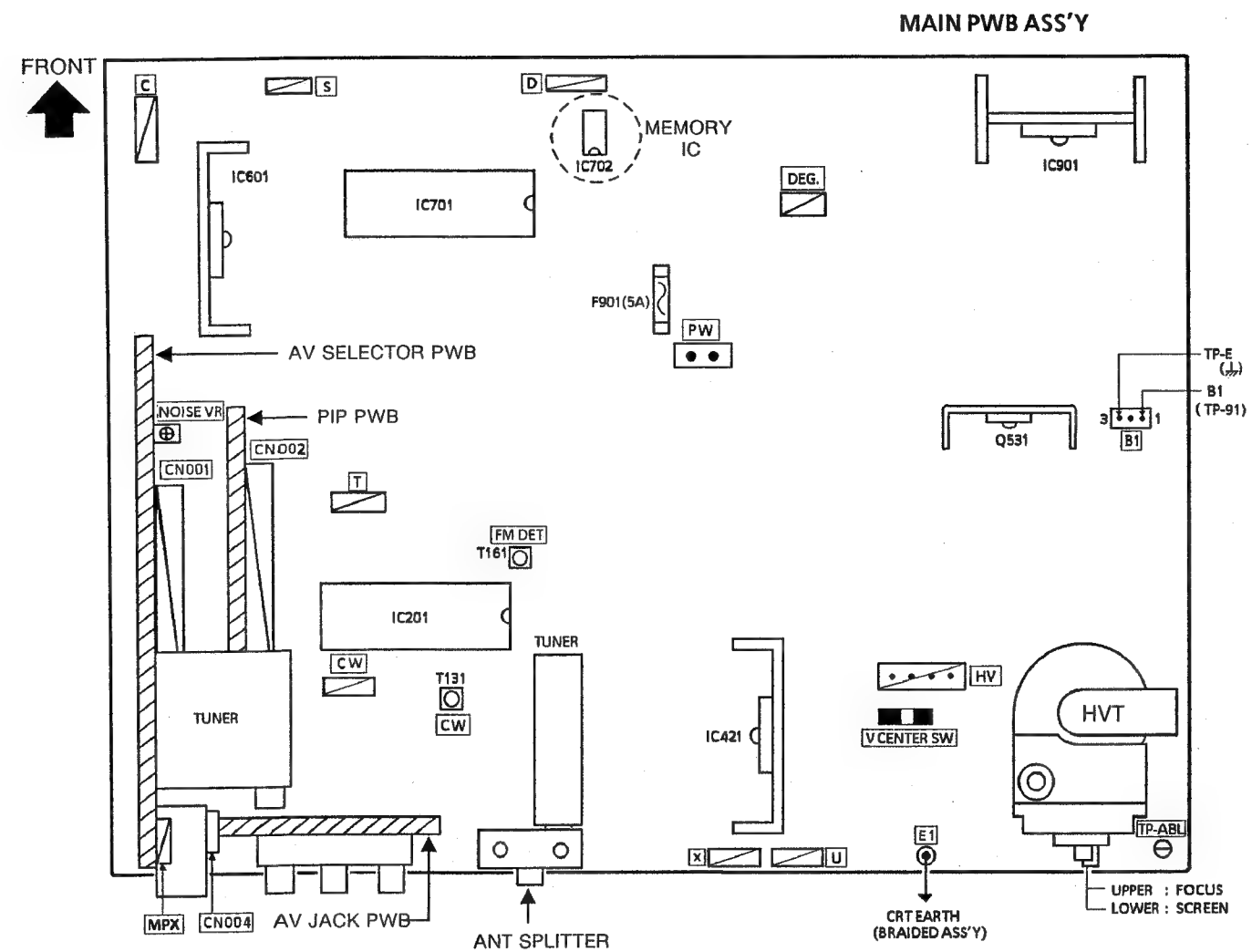
TOTAL 180CH { VHF 124CH / UHF 56CH

IC1 UPD17216GT-584 PULSE GENERATOR & DECODER

MAIN PARTS LOCATION AND ALIGNMENT LOCATION

WIRING LIST

MAIN PWB ASS'Y

P.W.B. or PART NAME	CONNECTOR NAME	WIRE	CONNECTOR NAME	P.W.B. or PART NAME
MAIN PWB ASS'Y	D	←→	D	FRONT CONTROL PWB ASS'Y
MAIN PWB ASS'Y	T	←→	T	CRT SOCKET PWB ASS'Y
MAIN PWB ASS'Y	U	←→	U	CRT SOCKET PWB ASS'Y
MAIN PWB ASS'Y	H/V	←→	WIRE	DEF. YOKE
MAIN PWB ASS'Y	DEG	←→	WIRE	DEG. COIL
MAIN PWB ASS'Y	PW	←→	WIRE	POWER CORD
MAIN PWB ASS'Y	S	←→	WIRE	SPEAKER (L/R)
MAIN PWB ASS'Y	E1 CRT EARTH	←→	EARTH WIRE	CRT (BRAIDED ASS'Y)
CRT SOCKET PWB ASS'Y	E2 CRT EARTH	←→	EARTH WIRE	CRT (BRAIDED ASS'Y)

●NOTE :Refer to Main Parts and Alignment Locations for detailed connector positions.

TOP

CRT SOCKET PWB ASS'Y (SOLDER SIDE)

FRONT CONTROL PWB ASS'Y (SOLDER SIDE)

BLOCK DIAGRAM

SP01 (R)   SP02 (L)

FRONT CONTROL PWB

IC601 AUDIO AMP
IN R L   OUT L R
1 2   11 13

PIP PWB

41 42 43 44   5 4 3 2
YS B G R   KEY1 KEY2 MEMORY
IC701
SENSOR CONTROL PROCESSOR
& CLOSED CAPTION
RM8bit RM16bit
10 1

IC702
MEMORY

SF101
SAW FILTER

Q101
IF AMP

R.G.B   R.G.B AMP   V01

CRT SOCKET PWB

17 16 15 14   8 7   21 20 19
B G R YS   B G R
IC201
1CHIP DECODER
SYNC Y C
37 43 45   47   SIF 52   FM DET 54

IF1

TU001
TUNER

MAIN PWB

R L   V-PIP   V-CCD   YS, B, G, R
31 29   17   13 24 25 26
AV SELECTOR PWB

Q203 Q205 BUFFER
Q204 BUFFER
Y C
15 16

CF131 4.5 TRAP   Q131 BUFFER   CF161 4.5 FILTER   Q161 BUFFER
Q132 BUFFER
14 VTV1   VTV
MPX
22
AV SELECTOR PWB
to ANT SPLITTER

to ANT SPLITTER

TU001 TUNER   IF   Q101 AMP   SF101 SAW FILTER   IC101 IF / VIDEO DET
5
6
19

C1
Y1

INPUT 1 (SV1)
4 5
1 3
2

IC802 VIDEO SELECTOR(PIP)
1 2 3 4   OUT
1 4 6 8   10

IC801 VIDEO SELECTOR
1 2 3 4   OUT
1 4 6 8   10

C1
Y1

CM201 COMB FILTER
V IN C OUT Y OUT
2 3 5

DL201 BPF & DL
C IN C OUT Y IN Y OUT
1 2 4 6

IC803 Y / C SW
4 3 2 1
8 9 10 11

V1
L1   INPUT 1
R1
5
2
3

V2
L2   INPUT 2
R2
7
10
11

VARI / FIX AUDIO OUT L R
13
15

AUDIO
COMPULINK
VCR
20
19
21

AV JACK PWB

Q804, Q805 AMP, BUFFER
Q806, Q807 AMP, BUFFER

Q305 BUFFER
Q204 BUFFER

L
11 10 9 8
IC661 AMP

41 40   39 38   37 36
L R   L1 R1   L2 R2
FIX OUT

IC671 VARI / FIX SW

IC601 MTS & TONE / VOL CONTROL
7 9

VARI OUT
R L
25 26

IC661 AMP
1 2 3 4

R L   MPX
31 29   22
MAIN PWB

V-TV1
V-CCD

V-PIP
C
Y

13 14   17 16 15
MAIN PWB

AV SELECTOR PWB

24 25 26
MAIN PWB

CIRCUIT DIAGRAMS AND PWB PATTERNS

AV-27750   AV-27750

AV SELECTOR PWB and AV JACK PWB CIRCUIT DIAGRAMS

This schematic diagram is applicable to both (US) and (CA) models.

As for the parts (marked by ✱) in the diagram, refer to the difference list (also marked by ✱ for the parts).

Refer to the following PWB pattern. : AV SELECTOR PWB PATTERN page 2-17~2-18.

AV JACK PWB PATTERN page 2-22.

PIP PWB CIRCUIT DIAGRAM

DIFFERENCE LIST
(MARKED"*"PART)

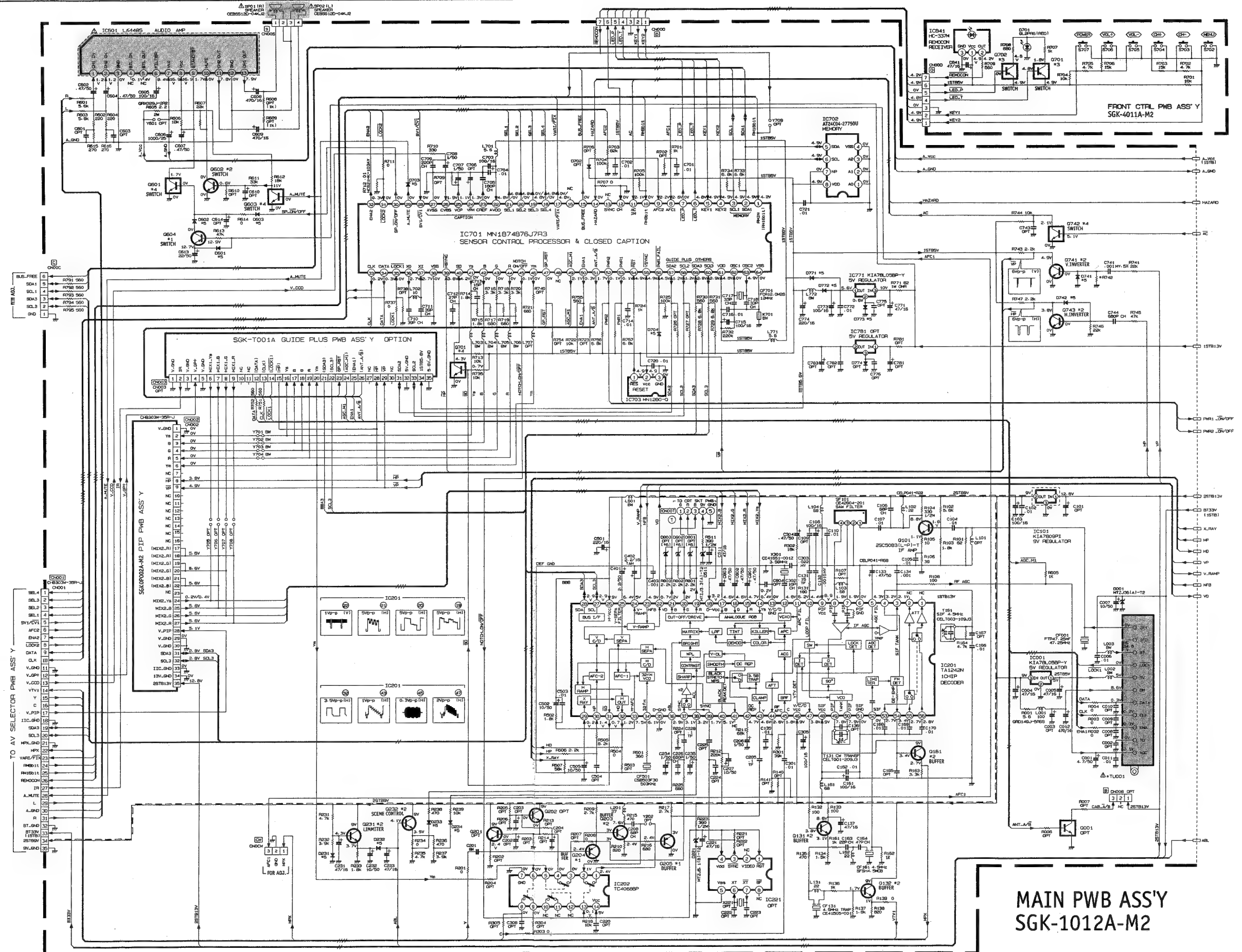| *	SGK 0R001A-M2	SGK 0R001B-M2	SGK 0P002A-M2
Q401	*2	*2	OPTION
D402	*5	*5	OPTION
R402	27K	27K	OPTION
R403	39K	39K	OPTION
C402	82p	82p	OPTION
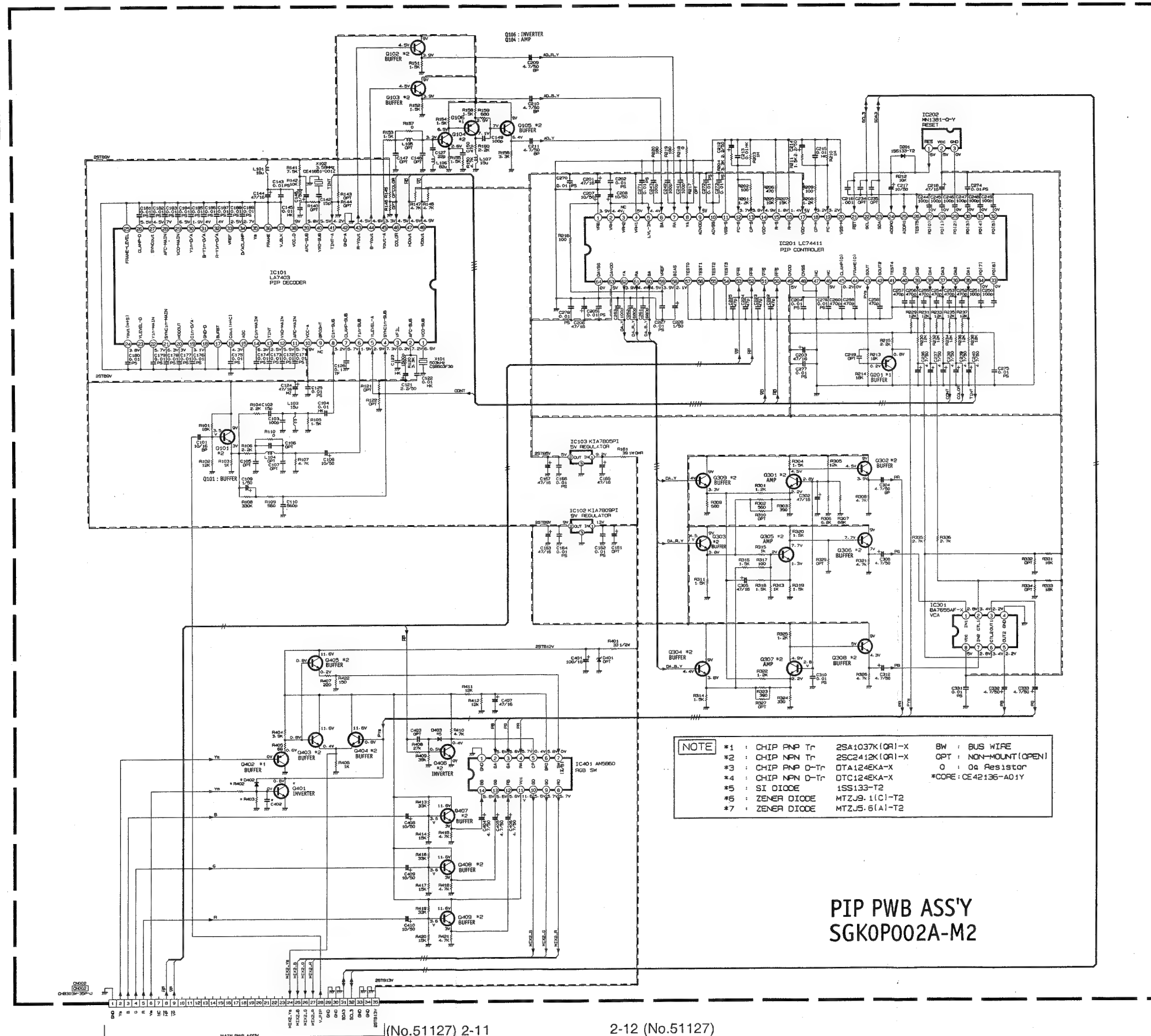
NOTE		
*1 : CHIP PNP Tr	2SA1037K(QR)-X	BW : BUS WIRE
*2 : CHIP NPN Tr	2SC2412K(QR)-X	OPT : NON-MOUNT(OPEN)
*3 : CHIP PNP D-Tr	DTA124EKA-X	0 : 0Ω Resistor
*4 : CHIP NPN D-Tr	DTC124EKA-X	*CORE : CE42136-A01Y
*5 : SI DIODE	1SS133-T2	
*6 : ZENER DIODE	MTZJ9.1(C)-T2	
*7 : ZENER DIODE	MTZJ5.6(A)-T2	

PIP PWB ASS'Y
SGK0P002A-M2

MAIN PWB, FRONT CONTROL PWB, and CRT SOCKET PWB CIRCUIT DIAGRAMS

**MAIN PWB ASS'Y
SGK-1012A-M2**

Refer to the following PWB pattern. : MAIN PWB PATTERN page 2-19, 2-20, FRONT CONTROL PWB PATTERN page 2-22,
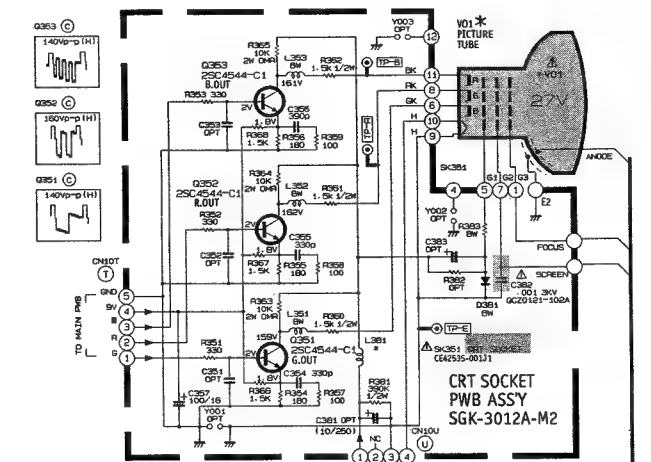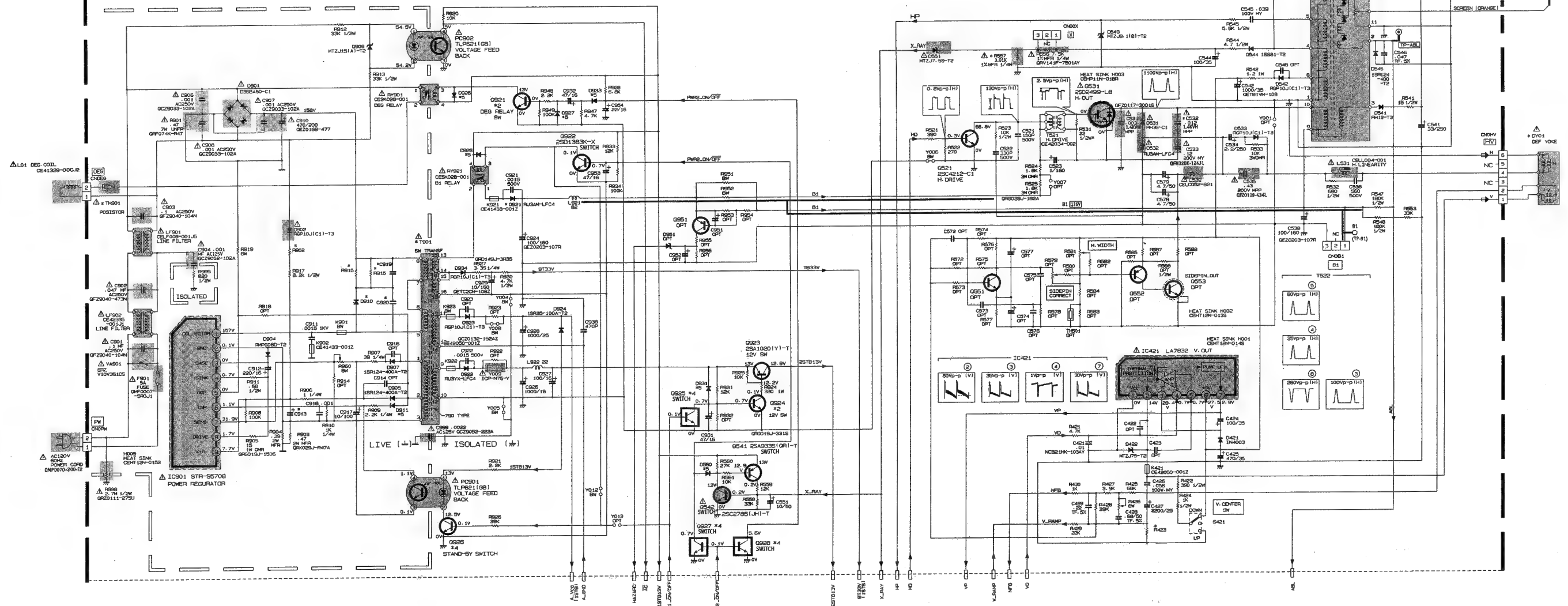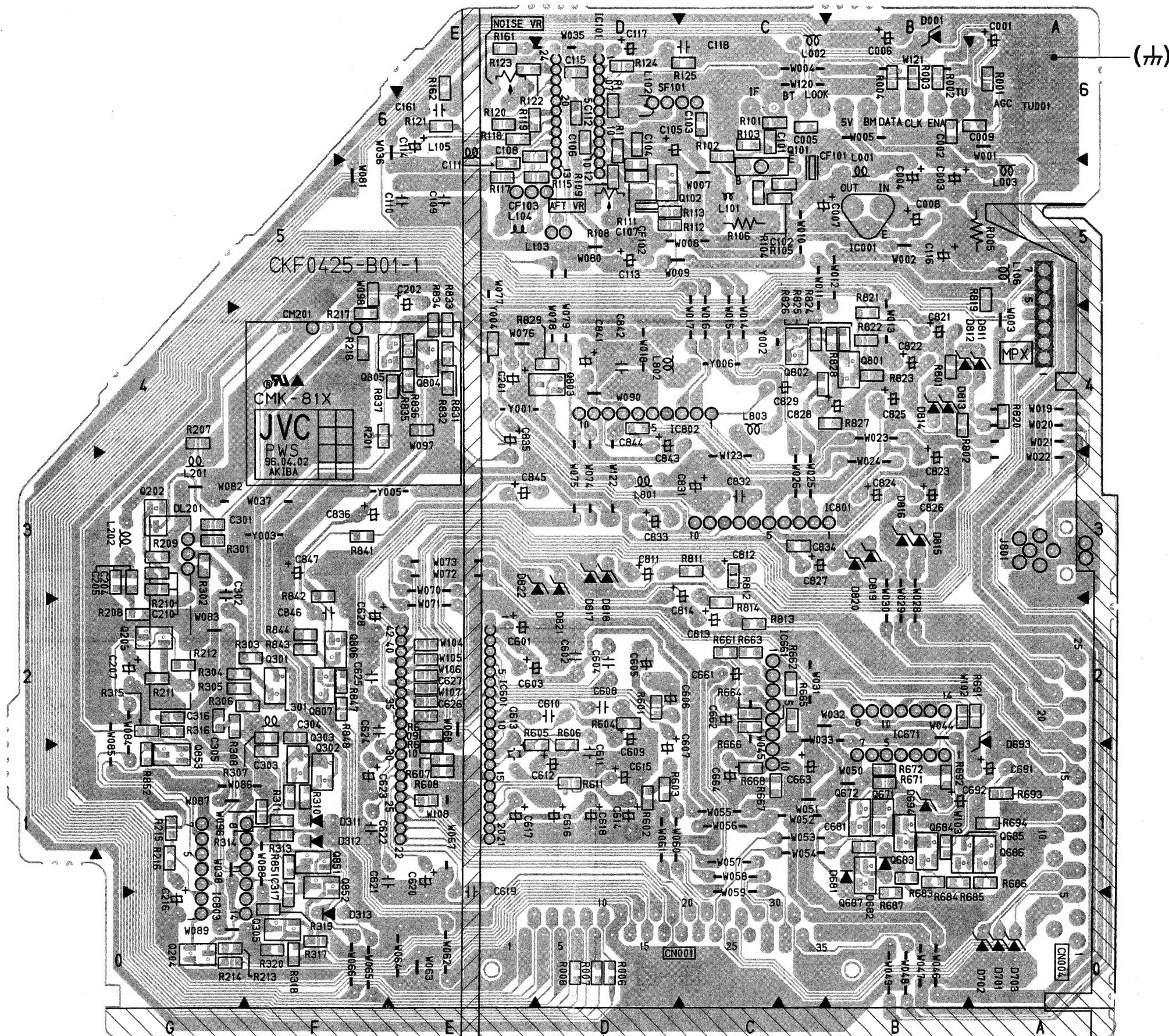CRT SOCKET PWB PATTERN page 2-23.

MAIN PWB ASS'Y

DIFFERENCES LIST (P2-13~P2-14) (MARKED "*" PART)

MODEL	AV-27750	AV-32750	AV-35750
*	SGK-1012A-M2	SGK-1017A-M2	SGK-1023A-M2
TU001	CEEK280-A01	CEEM270-A01	CEEM270-A01
R742	8.2k	10k	10k

DIFFERENCES LIST (P2-15~P2-16) (MARKED "*" PART)

MODEL	AV-27730	AV-27750	AV-27770	AV-27790
*	SGK-1011A-M2	SGK-1012A-M2	SGK-1013A-M2	SGK-1014A-M2
R423	QRX029U-A82A	QRX029U-A82A	QRX029U-1R0A	QRX029U-1R0A
C532	QFZ0117-1202S	QFZ0117-1202S	QFZ0117-1002S	QFZ0117-1002S
L591	CELC901-038U6	CELC901-036J6	CELC901-038U6	CELC901-038U6
R557	QRV141F-3011AY	QRV141F-3011AY	QRV141F-2671AY	QRV141F-2671AY
T522	CJ28333-00AJ1	CJ28333-00AJ1	CJ28212-00AJ1	CJ28212-00AJ1
TH901	CEKP007-002	CEKP007-002	CEKP007-001	CEKP007-001
C913	1000/10	1000/10	1000/10	1000/10
C919	OPT	OPT	OPT	QFF32GK-103M
C920	OPT	OPT	OPT	QCZ0122-102A
D910	OPT	OPT	OPT	EG1A-T3
R902	8.2k 1/2W	8.2K 1/2W	8.2K 1/2W	10K 1/2W
R915	OPT	OPT	OPT	QRG039U-223A
R916	OPT	OPT	OPT	QRG039U-223A
T901	CETS021-001J3	CETS021-001J3	CETS021-001J3	CETS063-001J8

CRT SOCKET PWB ASS'Y

DIFFERENCES LIST (P.2-16) (MARKED "*" PART)

MODEL	AV-27750 / AV-27770	AV-27730	AV-27790
*		SGK-3011A-M2	SGK-3012A-M2
L381		CELP055-680Z	CELP055-101Z

DIFFERENCES LIST (P.2-16) (MARKED "*" PART)

MODEL	AV-27730 AV-27750	AV-27770 AV-27790
V01	A68ADT25X01 PICTURE TUBE (ITC)	A68KRB58X(D)
DY01	Within PICTURE TUBE	CE20255-00E

NOTE

*1	CHIP PNP Tr	2SA1037K(QR)-X	BW : BUS WIRE
*2	CHIP NPN Tr	2SC2412K(QR)-X	OPT : NON-MOUNT(OPEN)
*3	CHIP PNP D-Tr	DTA124EKA-X	0 : 0Ω Resistor
*4	CHIP NPN D-Tr	DTC124EKA-X	
*5	SI DIODE	1SS133-T2	
*6	ZENER DIODE	MTZJ9.1(C)-T2	
*7	ZENER DIODE	MTZJ5.6(A)-T2	

MAIN PWB ASS'Y
SGK-1012A-M2

CRT SOCKET PWB ASS'Y SGK-3012A-M2

AV SELECTOR PWB PATTERN   [SGK-8012A-M2]

(Magnification Rate 135%)

FRONT   TOP

MAIN PWB PATTERN   [SGK-1012A-M2]   (Magnification Rate 95%)

FRONT

(⊥)

LIVE

DEG

ISOLATED

HV DANGER

POWER

IF/VIDEO/
CHROMA/DEF

MICOM

AUDIO

GUIDE PLUS

PIP

AV SEL

TP-91
(B1)

(⊥)

H DEF

SIDEPIN
CORRECT

SIDEPIN
CORRECT

H.WIDTH

HV

V CENTER SW

UP   DOWN

Y.LIN

TUNER

V DEF

JVC
PWS
'96.04.09
NOZAKI

CMK-81X

CKF0422-C01-1

TP-ABL

PIP PWB PATTERN   [SGK0P002A-M2]

(Magnification Rate 110%)
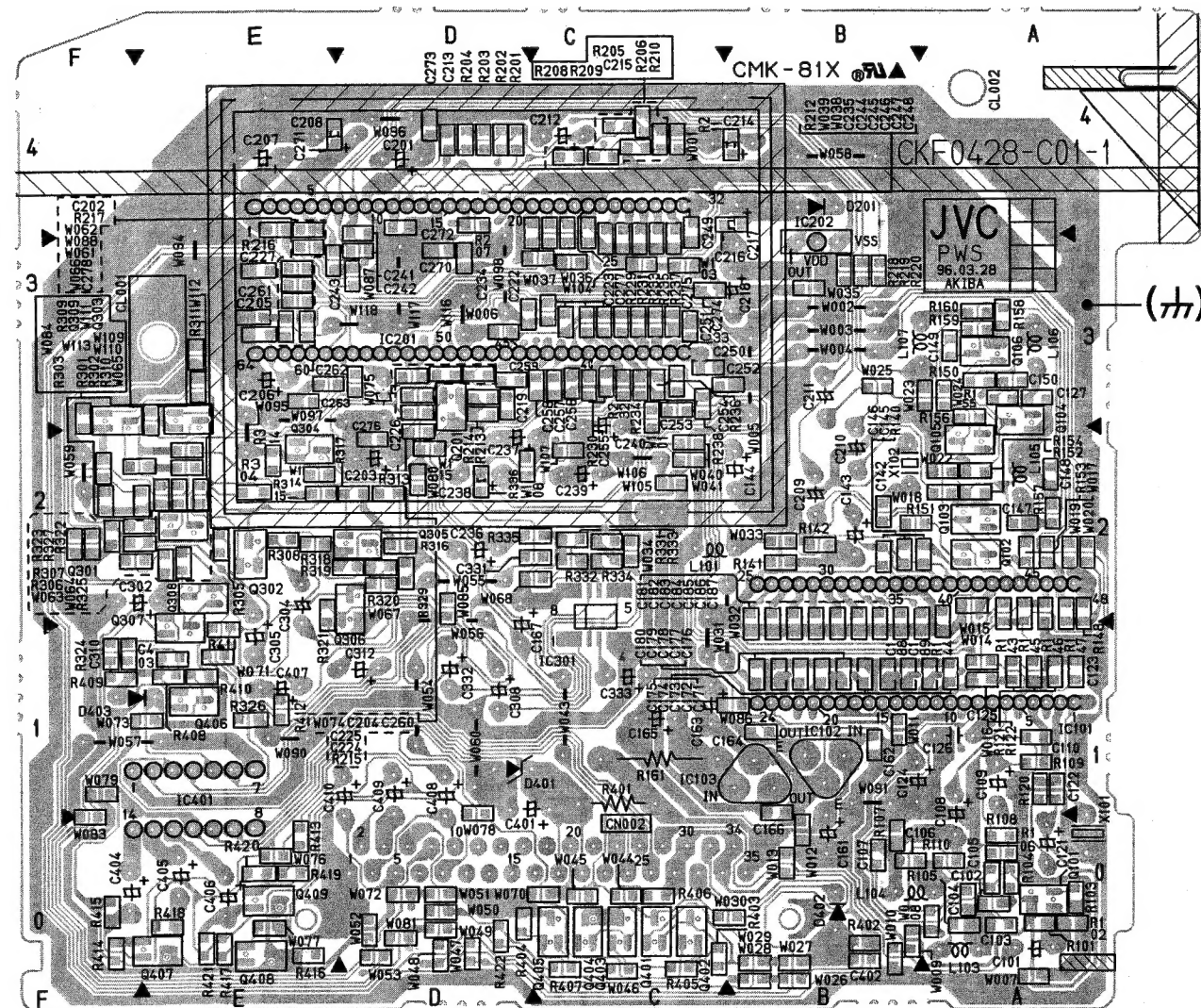
FRONT CONTROL PWB PATTERN   [SGK-4011A-M2]

(Magnification Rate 100%)
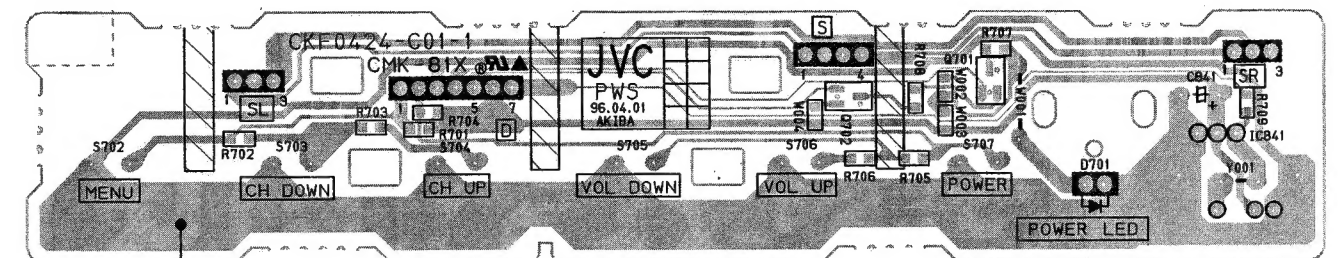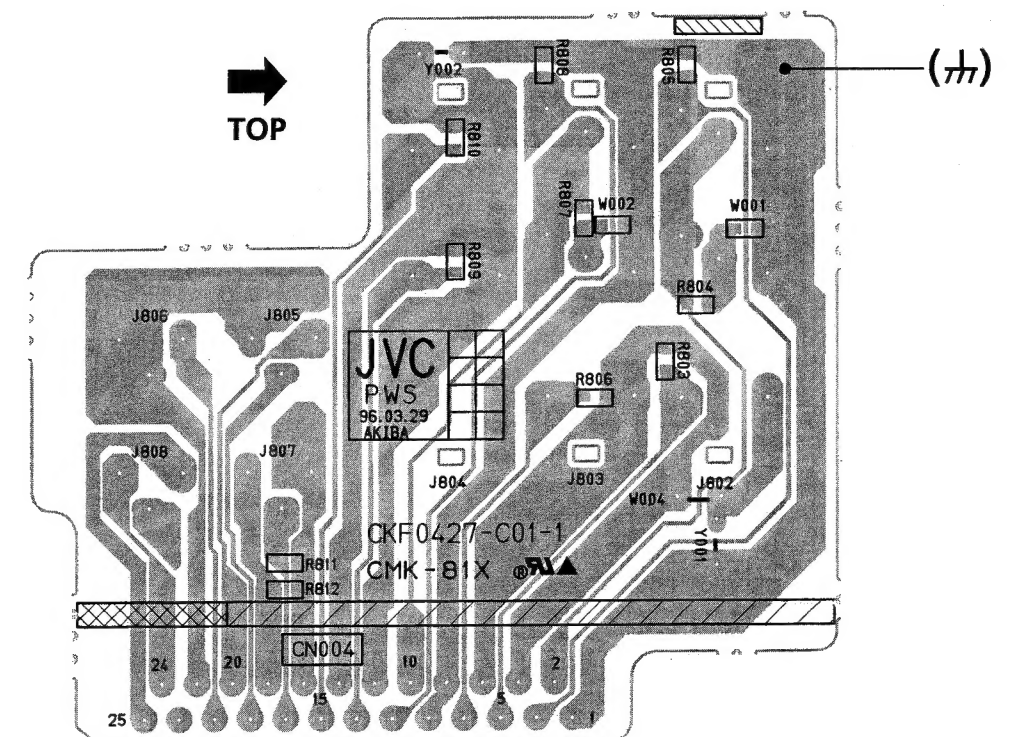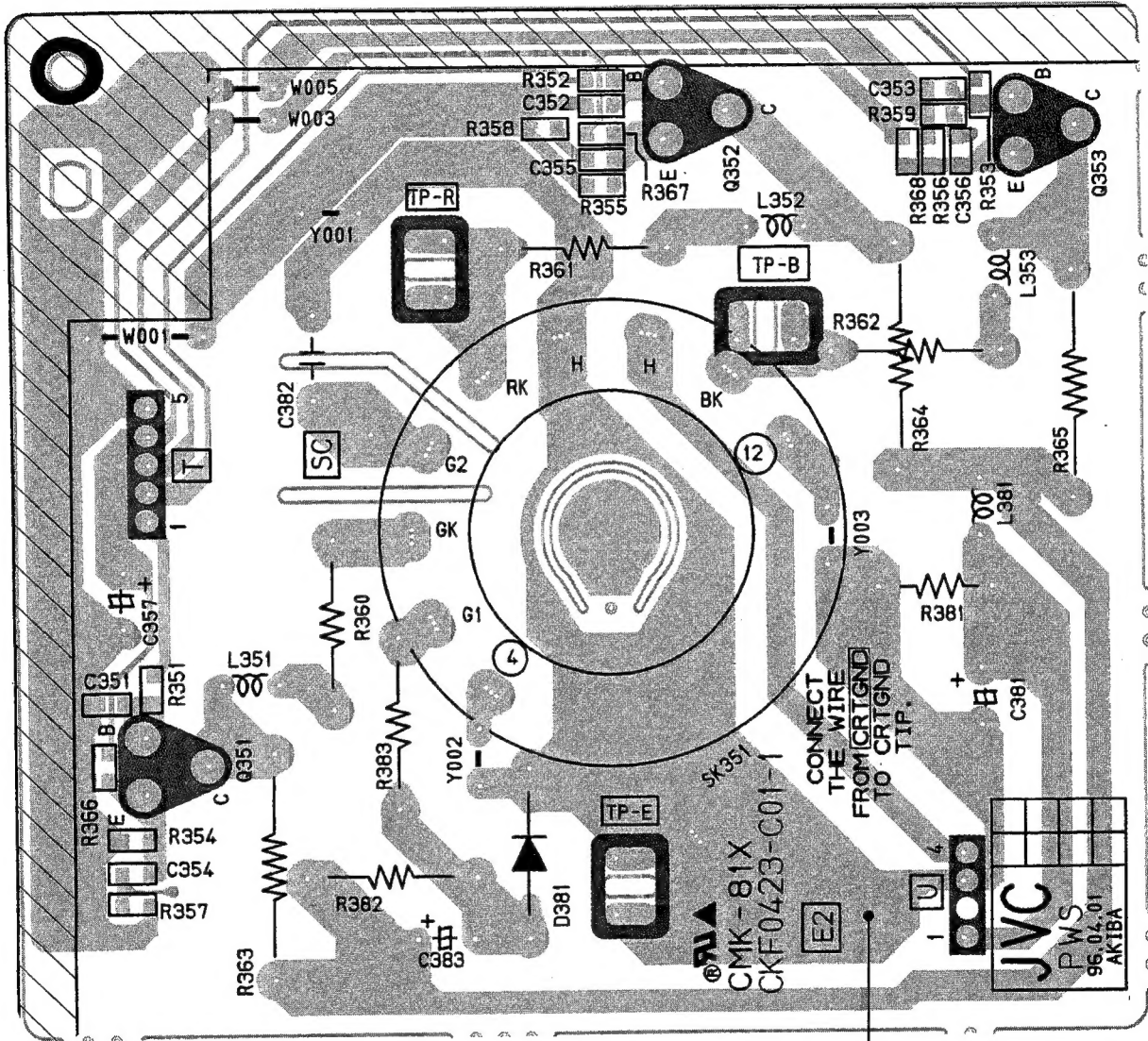
AV JACK PWB PATTERN   [SGK0J002A-M2]

(Magnification Rate 120%)

CRT SOCKET PWB PATTERN   [SGK-3012A-M2]

(Magnification Rate 160%)

↑ TOP